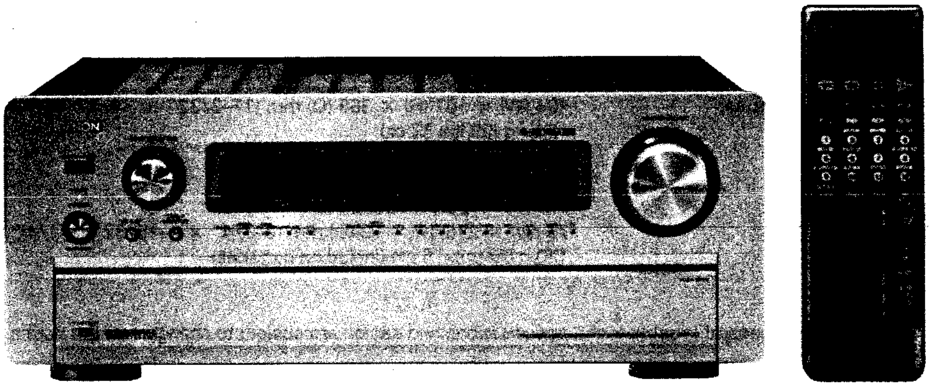
DENON

Hi-Fi Digital AV Pre-amplifier

SERVICE MANUAL

MODEL AVP-A1

DIGITAL AV PRE-AMPLIFIER



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NIPPON COLUMBIA CO., LTD.

SPECIFICATIONS

- **Audio section**

(Analog)

Input sensitivity / input impedance:	200 mV/47 kΩ / kohms
Frequency response:	10 Hz ~ 100 kHz: +0, −3 dB (DIRECT mode)
S / N:	105 dB (DIRECT mode)
Distortion:	0.005% (20 Hz ~ 20 kHz) (DIRECT mode)
Rated output / maximum output:	1.2 V/8 V
Maximum headphones output:	284 mW (8 Ω/ohms)

(Digital)

D / A output:	Rated output – 2 V (at 0 dB playback) Total harmonic distortion – 0.005% (1 kHz, at 0 dB) S/N ratio – 102 dB Dynamic range – 96 dB
Digital input:	Format – Digital audio interface

- **Video section**

(Standard video jacks)

Input / output level and impedance:	1 Vp–p, 75 Ω / ohms
Frequency response:	5 Hz ~ 10 MHz +0, −3 dB

(S-video jacks)

Input / output level and impedance:	Y (brightness) signal – 1 Vp–p, 75 Ω/ohms C (color) signal – 0.286 Vp–p, 75 Ω/ohms
Frequency response:	5 Hz ~ 10 MHz +0, −3 dB

- **General**

Power supply:	AC 230 V, 50 Hz
Power consumption:	60 W
Maximum external dimensions:	434 (W) × 167 (H) × 396 (D) mm (17-3/32" × 6-37/64" × 15-19/32")
Weight:	13.5 kg (29 lbs 13 oz)

- **Remote control unit (RC–809)**

Batteries:	R6P/AA Type (two batteries)
~~**External dimensions:**~~	~~70 (W) × 215 (H) × 19 (D) mm (2-3/4" × 8-15/32" × 3/4")~~
Weight:	180 g (Approx. 6 oz) (including batteries)

* For purposes of improvement, specifications and design are subject to change without notice.

- **SAFETY PRECAUTIONS**

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

- **安全事項**

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

注意：為減少觸電危險，切勿拆下機殼（或機背）。機身內並無用戶修理用零件。請交由專業修理人員修理本機。

三角形內有箭頭的閃電符號旨在提醒用戶，本產品機殼內有未經絕緣的"危險電壓"，其幅度足以使人觸電而發生危險。

三角形內加感嘆號旨在提醒用戶，有重要的操作與維修說明書配合本機。

警告：為減少着火或觸電危險，切勿讓本機受雨淋濕或受潮。

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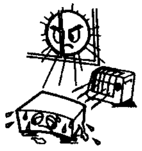
- **ACCESSORIES**

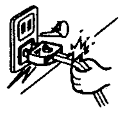
Check that the following parts are included in addition to the main unit:

① Operating instructions 1	② Remote control unit (RC-809) 1
③ R6P/AA batteries 2	④ AC power cord 1

1 NOTE ON USE

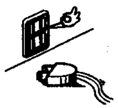


- Avoid high temperatures
Allow for sufficient heat dispersion when installed on a rack.

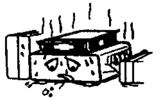


- Handle the power cord carefully. Hold the plug when unplugging the cord.

- Keep the set free from moisture, water, and dust.

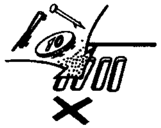


- Unplug the power cord when not using the set for long periods of time.



•(For sets with ventilation holes)

- Do not obstruct the ventilation holes.



- Do not let foreign objects in the set.

- Do not let insecticides, benzene, and thinner come in contact with the set.

- Never disassemble or modify the set in any way.

2 BEFORE USING

Pay attention to the following before using this unit:

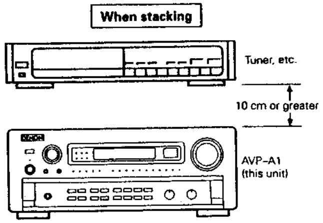
- **Moving the set**
  To prevent short circuits or damaged wires in the connection cords, always unplug the power cord and disconnect the connection cords between all other audio components when moving the set.
- **Before turning the power switch on**
  Check once again that all connections are proper and that there are not problems with the connection cords. Always set the power switch to the standby position before connecting and disconnecting connection cords.
- **Store this instructions in a safe place.**
  After reading, store this instructions in a safe place. Also fill in the items on the back page for your convenience.
- **Note that the illustrations in this instructions may differ from the actual set for explanation purposes.**

3 CAUTIONS ON INSTALLATION

Noise or disturbance of the picture may be generated if this unit or any other electronic equipment using microprocessors is used near a tuner or TV.
If this happens, take the following steps:

- Install this unit as far as possible from the tuner or TV.
- Set the antenna wires from the tuner or TV away from this unit's power cord and input/output connection cords.
- Noise or disturbance tends to occur particularly when using indoor antennas or 300 Ω/ohms feeder wires. **We recommend using outdoor antennas and 75 Ω/ohms coaxial cables.**

When stacking



To allow the heat to be dispersed, do not set an AV component directly on this unit. Leave a space of at least 10cm.

4 CAUTIONS ON HANDLING

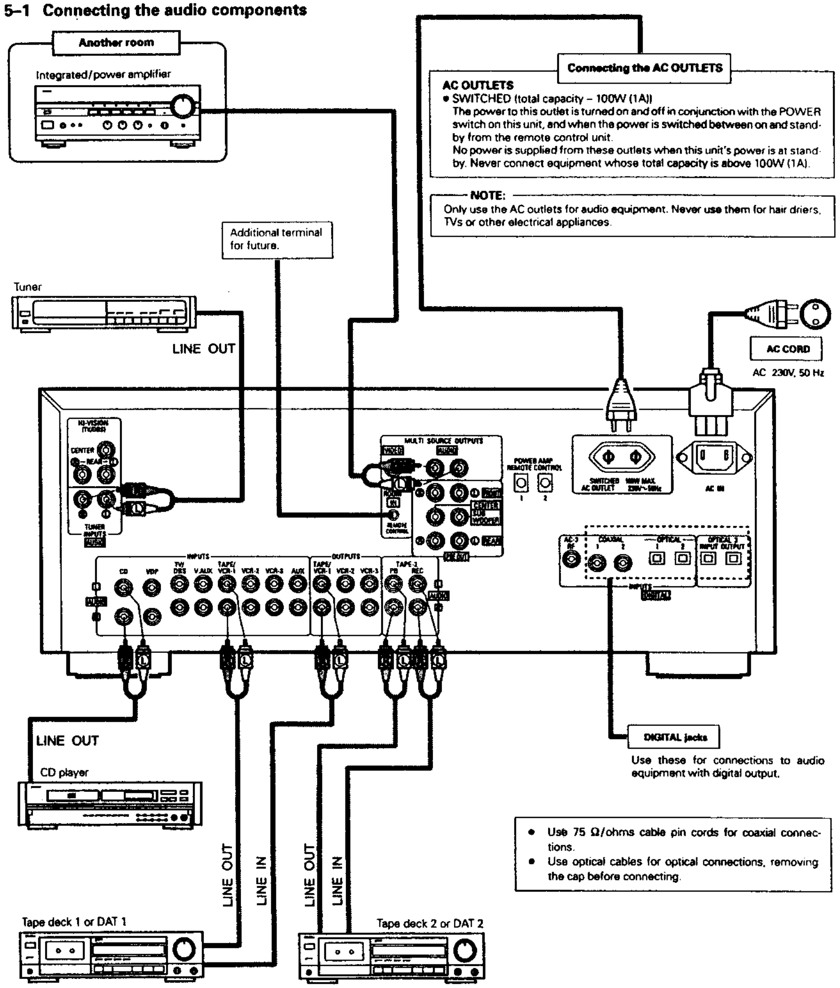
- **Switching the input function when input jacks are not connected**
  A clicking noise may be produced if the input function is switched when nothing is connected to the input jacks. If this happens, either turn down the MASTER VOLUME control or connect components to the input jacks.
- **Muting of PRE OUT jacks**
  The PRE OUT jacks include a muting circuit. Because of this, the output signals are greatly reduced for several seconds after the power switch is turned on or input function, surround mode or any other set-up is changed. If the volume is turned up during this time, the output will be very high after the muting circuit stops functioning. Always wait until the muting circuit turns off before adjusting the volume.
- **Opening and closing the door**
  This unit has a door on the front panel. Press the "PUSH OPEN" mark on the upper right side of the door to unlatch and open it. To close it, press it until a click is heard.

NOTE: The door opens out automatically once it is unlatched, but it may stop halfway. This is not a malfunction. In this case, pull down the door lightly to open it.

5 CONNECTIONS

- Do not plug in the power cord until all connections have been completed.
- Be sure to connect the left and right channels properly (left with left, right with right).
- Insert the plugs securely. Incomplete connections will result in the generation of noise.
- **Use the AC OUTLETS for audio equipment only. Do not use them for hair driers, etc.**
- Note that binding pin plug cords together with power cords or placing them near a power transformer will result in generating hum or other noise.
- Noise or humming may be generated if a connected audio equipment is used independently without turning the power of this unit on. If this happens, turn on the power of the this unit.

5-1 Connecting the audio components



Connecting the AC OUTLETS

AC OUTLETS

- SWITCHED (total capacity – 100W (1A))
  The power to this outlet is turned on and off in conjunction with the POWER switch on this unit, and when the power is switched between on and stand-by from the remote control unit.
  No power is supplied from these outlets when this unit's power is at stand-by. Never connect equipment whose total capacity is above 100W (1A).

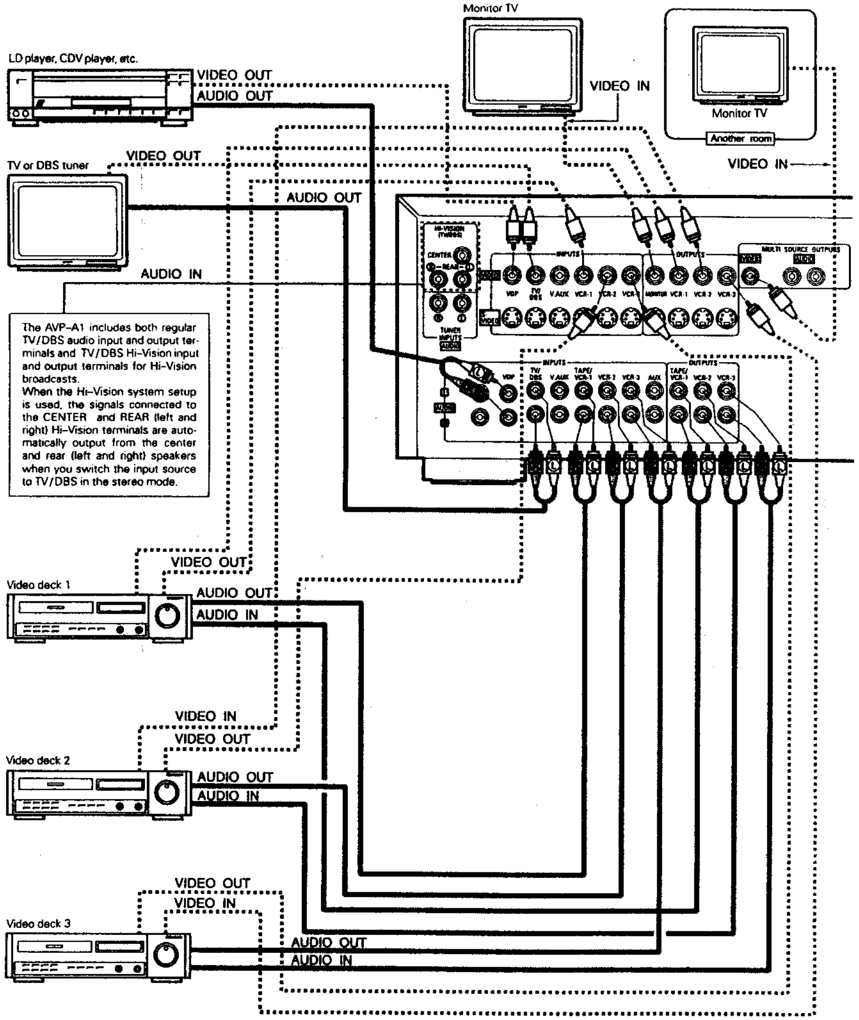
NOTE:
Only use the AC outlets for audio equipment. Never use them for hair driers, TVs or other electrical appliances.

Use these for connections to audio equipment with digital output.

- Use 75 Ω/ohms cable pin cords for coaxial connections.
- Use optical cables for optical connections, removing the cap before connecting.

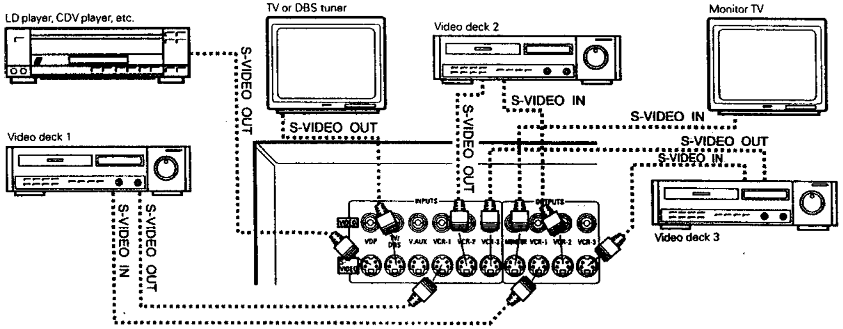
5–2 Connecting the video equipments

To connect the video signal, connect using a 75 Ω/ohms video signal cable cord. Using an improper cable can result in a drop in sound quality.


LD player, CDV player, etc.
VIDEO OUT
AUDIO OUT
Monitor TV
VIDEO IN
Monitor TV
Another room
VIDEO IN
TV or DBS tuner
VIDEO OUT
AUDIO OUT
AUDIO IN
Video deck 1
VIDEO OUT
AUDIO OUT
AUDIO IN
VIDEO IN
VIDEO OUT
Video deck 2
AUDIO OUT
AUDIO IN
VIDEO OUT
VIDEO IN
Video deck 3
AUDIO OUT
AUDIO IN

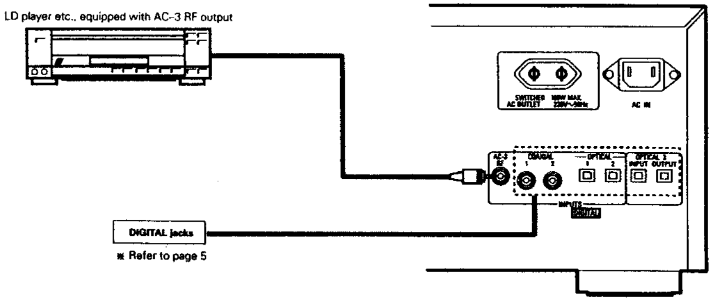
The AVP–A1 includes both regular TV/DBS audio input and output terminals and TV/DBS Hi–Vision input and output terminals for Hi–Vision broadcasts.
When the Hi–Vision system setup is used, the signals connected to the CENTER and REAR (left and right) Hi–Vision terminals are automatically output from the center and rear (left and right) speakers when you switch the input source to TV/DBS in the stereo mode.

5–3 Connecting the S–video terminals


LD player, CDV player, etc.
TV or DBS tuner
Video deck 2
Monitor TV
S-VIDEO OUT
S-VIDEO IN
S-VIDEO OUT
S-VIDEO IN
Video deck 1
S-VIDEO OUT
S-VIDEO IN
S-VIDEO OUT
S-VIDEO IN
S-VIDEO OUT
Video deck 3

- **A note on the S input jacks**
  The input selectors for the S inputs and pin jack inputs work in conjunction with each other.
- **Precaution when using S–jacks**
  This unit's S–jacks (input and output) and video pin jacks (input and output) have independent circuit structures, so that video signals input from the S–jacks are only output from the S–jack outputs and video signals input from the pin jacks are only output from the pin jack outputs. When connecting this unit with equipment that is equipped with S–jacks, keep the above point in mind and make connections according to the equipment's instruction manuals.

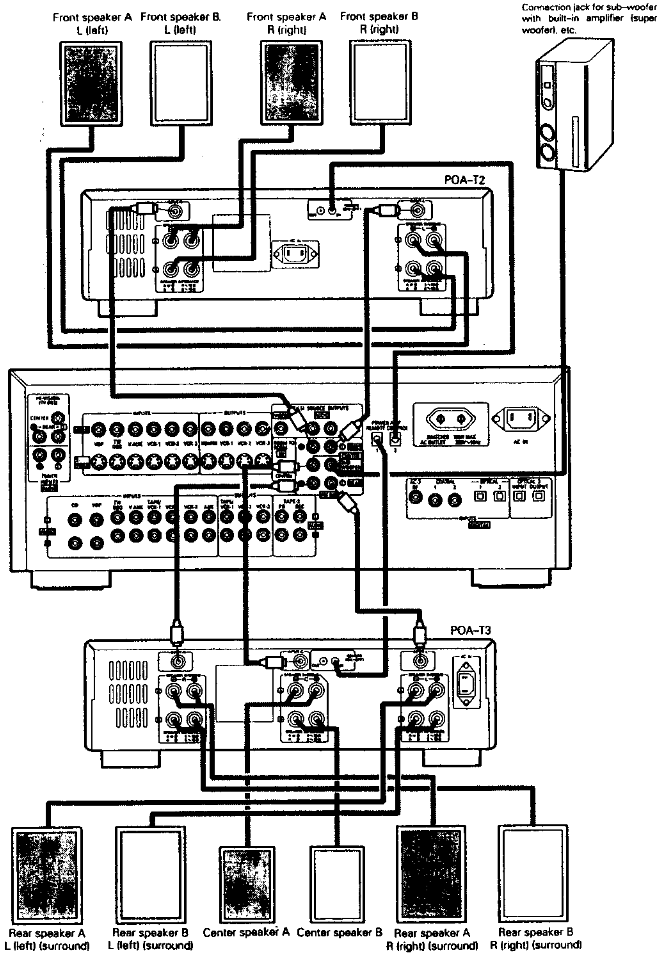
5–4 Connecting the video equipments with Digital jacks


LD player etc., equipped with AC-3 RF output
DIGITAL jacks

※ Refer to page 5

5-5 Connections with the power amplifier

- For optimal multichannel sound performance, we recommend the use of THX® certificated power amplifiers (such as the DENON POA-T2 and POA-T3) and THX loudspeaker systems.


Front speaker A
L (left)
Front speaker B.
L (left)
Front speaker A
R (right)
Front speaker B
R (right)
Connection jack for sub-woofer with built-in amplifier (super woofer), etc.
POA-T2
POA-T3
Rear speaker A
L (left) (surround)
Rear speaker B
L (left) (surround)
Center speaker A
Center speaker B
Rear speaker A
R (right) (surround)
Rear speaker B
R (right) (surround)

- **Precautions when connecting speakers**
  If a speaker is placed near a TV or video monitor, the colors on the screen may be disturbed by the speaker's magnetism. If this should happen, move the speaker away to a position where it does not have this effect.

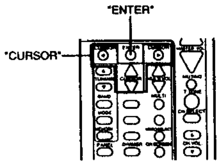
- **POWER AMPLIFIER REMOTE CONTROL jacks**
  These jacks are for setting Denon power amplifiers to the on-standby mode in link with the POWER switch on this unit. Use the cables included with the power amplifier for connection. Up to two power amplifiers can be controlled.

6 SYSTEM SETUP

After connections with other components have been made, make the various settings on the monitor using this unit's on-screen display. These settings must be made in order to complete the AV system in your listening room.

NOTES:
- The output from the S MONITOR OUT terminal has priority for the on-screen display. If you want to always output the on-screen display signals to the video output, do not connect a cable to the S MONITOR OUT terminal.
- The on-screen display is not displayed for the MULTI SOURCE MONITOR OUT terminal.
- This model's on-screen function is designed for high resolution monitor displays. Small characters may be difficult to read on small displays or low resolution TVs.

Use the following buttons on the remote control unit to make the settings:


"ENTER"
"CURSOR"

"ENTER" button
Press this to switch the display on the screen.
Also use this button to complete the setting on the screen.

"CURSOR" buttons
◀ and ▶ : Use these to move the cursors (◀ and ▶) to the left and right on the screen.
△ and ▽ : Use these to move the cursors (▲ and ▼) up and down on the screen.

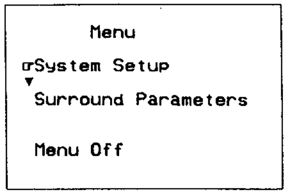
6-1 Before Setting Up the System

1. Turn on the power and press the ENTER button.
   The "Menu" screen (screen 1) appears on the monitor.

2. Use the CURSOR buttons to specify "System Setup".

3. Press the ENTER button to switch the screen.

The "System Setup Menu" screen (screen 2) appears on the monitor.

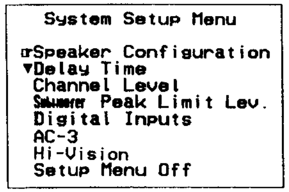


```
      Menu

☞System Setup
▼
 Surround Parameters

 Menu Off
```

(screen 1)



```
   System Setup Menu

☞Speaker Configuration
▼Delay Time
 Channel Level
 Subwoofer Peak Limit Lev.
 Digital Inputs
 AC-3
 Hi-Vision
 Setup Menu Off
```

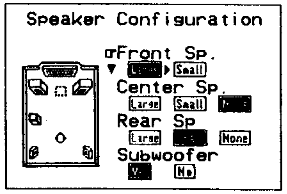
(screen 2)

6-2 Setting the Speaker Configuration

1. Use the CURSOR buttons to specify "Speaker Configuration".

2. Press the ENTER button.

The "Speaker Configuration Menu" screen (screen 3) appears on the monitor.



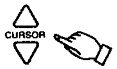
```
Speaker Configuration

        ☞Front Sp.
         ▼ Large ▶ Small
          Center Sp.
           Large  Small  None
          Rear Sp
           Large  Small  None
          Subwoofer
           Yes  No
```

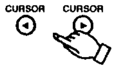
(screen 3)

3. Use the CURSOR buttons and select the different types of speakers connected and their size parameters.

To select the speakers:



To select the parameters:



※ Large: Select this when using speakers that can fully reproduce low sounds of below 80 Hz.

※ Small: Select this when using speakers that cannot reproduce low sounds of below 80 Hz with sufficient volume.
When this setting is selected, low frequencies of below 80 Hz are assigned to the subwoofer.

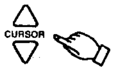
※ To take full advantage of the performance of the Home THX certified speaker systems, set the front, center and rear speaker size parameters to "Small" and the subwoofer to "Yes".
The selected parameters are highlighted.

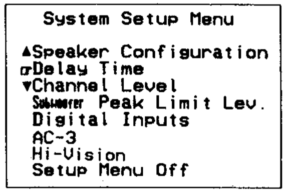
4. After the above selections are completed, press the ENTER button again.
The "System Setup Menu" screen reappears.

6-3 Setting the Delay Time

Input the listening position and the distance of the different speakers.1.

1. Use the CURSOR buttons to specify "Delay Time" from the "System Setup Menu" screen (screen 4).





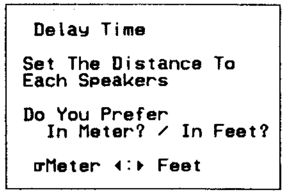
System Setup Menu

▲Speaker Configuration
☞Delay Time
▼Channel Level
Subwoofer Peak Limit Lev.
Digital Inputs
AC-3
Hi-Vision
Setup Menu Off

(screen 4)

2. Press the ENTER button.

The "Delay Time" screen (screen 5) appears on the monitor.



Delay Time

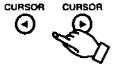
Set The Distance To
Each Speakers

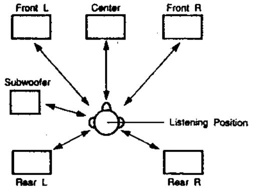
Do You Prefer
In Meter? / In Feet?

☞Meter ◂:▸ Feet

(screen 5)

3. Use the CURSOR buttons to specify the unit of distance.

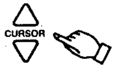




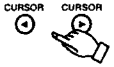
NOTE: The settings are reset to their initial values when switching between meters and feet.

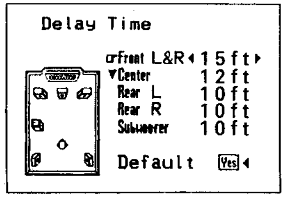
4. Use the CURSOR buttons to input the listening position and the distance of the different speakers. (screen 6-A)

To select the speakers:



To select the distance:





Delay Time

☞Front L&R ◂ 1 5 f t ▸
▼Center 1 2 f t
Rear L 1 0 f t
Rear R 1 0 f t
Subwoofer 1 0 f t

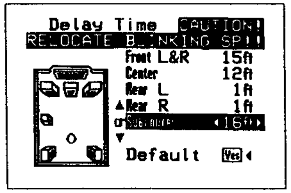
Default Yes ◂

(screen 6-A)

※ Select "Default" to return to the initial settings.

5. After the above selections are completed, press the ENTER button again.
The "System Setup Menu" screen reappears.
This procedure automatically sets the optimum surround delay time for the listening room.

※ Please note that the difference of distance for every speaker should be 15 ft (4.5 m) or less. If you set an invalid distance, a CAUTION notice, such as screen 6-B will appear. In this case, please relocate the blinking speaker(s) so that its distance is no larger than the value shown in highlighted line. Then press the ENTER button again.



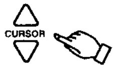
Delay Time CAUTION!
RELOCATE BLINKING SP!!
Front L&R 15ft
Center 12ft
Rear L 1ft
▲Rear R 1ft
☞Subwoofer ◂ 16ft ▸
▼
Default Yes ◂

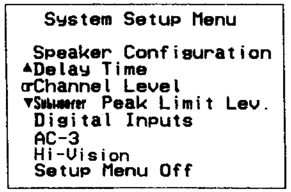
(screen 6-B)

6-4 Setting the Channel Level

Use test tones to adjust the volume of the different speakers.

1. Use the CURSOR buttons to specify "Channel Level" from the "System Setup Menu" screen. (screen 7)





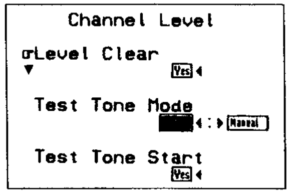
System Setup Menu

Speaker Configuration
▲Delay Time
☞Channel Level
▼Subwoofer Peak Limit Lev.
Digital Inputs
AC-3
Hi-Vision
Setup Menu Off

(screen 7)

2. Press the ENTER button.

The "Channel Level" screen (screen 8) appears on the monitor.



Channel Level

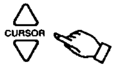
☞Level Clear
▼ Yes ◂

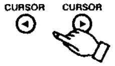
Test Tone Mode
[illegible] ◂ : ▸ Manual

Test Tone Start
Yes ◂

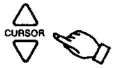
(screen 8)

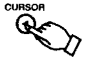
3. Use the CURSOR buttons to select "Test Tone Mode", then select "Auto" or "Manual".



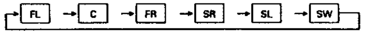


4. Use the CURSOR buttons to select "Test Tone Start", then select "Yes".

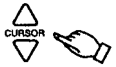




5. a. If the "Auto" mode is selected:
Test tones are automatically emitted from the different speakers. The test tones are emitted from the different speakers in the following order, at 4–second intervals the first time and second time around, 2–second intervals the third time around and on:

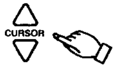


Use the CURSOR buttons to adjust all the speakers to the same volume. (screen 9)

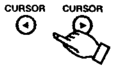


b. If the "Manual" mode is selected:
Use the cursor buttons to select the speakers from which to emit the test tones and adjust the volume. (screen 10)

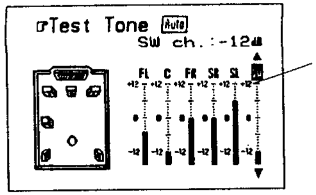
To adjust the volume:



To select the speaker:

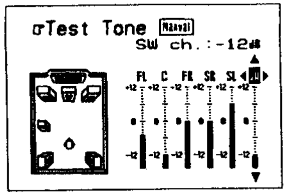


The level of each channel should be adjusted to 75 dB (C–weighted, slow meter mode) on a sound level meter at the listening position.
If a sound level meter is not available adjust the channels by ear so the sound levels are the same. Because adjusting the subwoofer level test tone by ear is difficult, use a well known music selection and adjust for natural balance.
NOTE: When adjusting the level of an active subwoofer system, you may also need to adjust the subwoofer's own volume control.


☞Test Tone Auto
SW ch.: -12dB

The test tone is emitted from the speaker whose indicator is highlighted.

(screen 9)


☞Test Tone Manual
SW ch.: -12dB

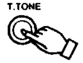
(screen 10)

6. After the above settings are completed, press the ENTER button again.
   The "System Setup Menu" screen reappears.
   To cancel the settings, select "Level Clear" and "Yes" on the "Channel Level" screen, then make the settings again.

NOTE: 1. The output channel levels for all the surround modes are set to the same conditions when the channel level setting on the system setup menu is conducted.
2. When the level clear operation is performed, all channel levels for all modes are set to 0 dB.

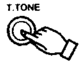
The speaker volume adjustment using the test tones can be performed from the remote control unit as well as from the "System Setup Menu".

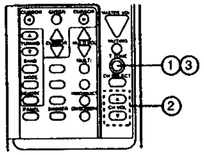
1. Press the Test Tone button



2. Test tones are emitted from the different speakers. Adjust so that the volumes of the all the speakers are equal.

3. Turn the test tone off.





※ The remote control unit's T.TONE button can only be used when in the DOLBY SURROUND and THX CINEMA modes.

NOTE: Only the "Auto" mode can be used when the test tone button is pressed. In addition, the adjusted output level is only backed up for the Dolby Surround or THX Cinema mode.

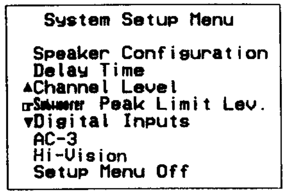
6-5 Subwoofer Peak Limit Level Setting

This unit features a subwoofer peak limit control which prevents distortion and damage in the loudspeaker system by controlling the maximum bass volume level. With this feature you may set the maximum bass level for the system. This feature operates with or without a subwoofer in the system.

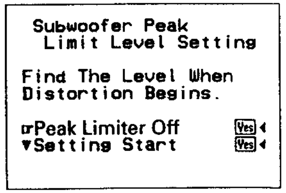
1. Use the CURSOR buttons to specify "Subwoofer Peak Limit Lev." from the "System Setup Menu" screen. (screen 11)

2. Press the ENTER button.

The "Subwoofer Peak Limit Level Setting" screen (screen 12) appears.


System Setup Menu
Speaker Configuration
Delay Time
▲Channel Level
☞Subwoofer Peak Limit Lev.
▼Digital Inputs
AC-3
Hi-Vision
Setup Menu Off

(screen 11)

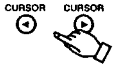

Subwoofer Peak
Limit Level Setting
Find The Level When
Distortion Begins.
☞Peak Limiter Off Yes◂
▼Setting Start Yes◂

(screen 12)

3. Use the CURSOR buttons to select "Setting Start" and "Yes".

The screen changes (screen 13) and a test noise is output from the subwoofer.
(Clear the subwoofer's peak limit level setting by specifying "Setting Clear" and "Yes".)

4. Use the right CURSOR button to increase the test noise output level until the loudspeaker system's bass sound is distorted. Bass distortion can be heard as an obvious overload.
   When you hear that the bass sound is distorted, press the down CURSOR button.



This unit automatically sets the subwoofer peak limit level so the bass level will never be louder than the test noise signal.

5. Press the ENTER button to complete the setting, or press the left CURSOR button and select "Want To Try Again?" and "Yes" to redo the setting. (screen 14)
6. To redo the setting, press the left CURSOR button at the new screen to select "Are You Sure" and "Yes" (screen 15), then repeat from step 3.

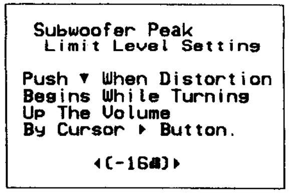
6-6 Digital Input Setup

Input the types of components connected to the digital input terminals.

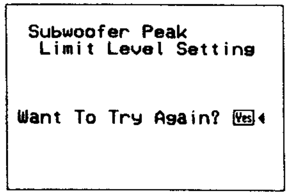
1. Use the CURSOR buttons to specify "Digital Inputs" from the "System Setup Menu" screen. (screen 16)

2. Press the ENTER button.

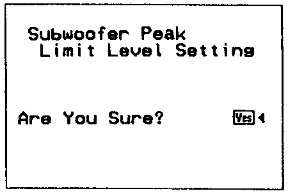
The "Digital Input Setup" screen appears. (screen 17)


Subwoofer Peak
Limit Level Setting
Push ▼ When Distortion
Begins While Turning
Up The Volume
By Cursor ▶ Button.
◂(-16dB)▸

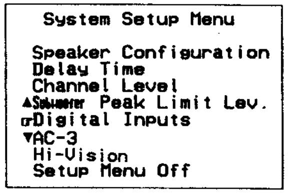
(screen 13)


Subwoofer Peak
Limit Level Setting
Want To Try Again? Yes◂

(screen 14)


Subwoofer Peak
Limit Level Setting
Are You Sure? Yes◂

(screen 15)

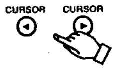

System Setup Menu
Speaker Configuration
Delay Time
Channel Level
▲Subwoofer Peak Limit Lev.
☞Digital Inputs
▼AC-3
Hi-Vision
Setup Menu Off

(screen 16)

3. Use the cursor buttons to input the types of components connected to the digital input terminals.

To select the input terminal:

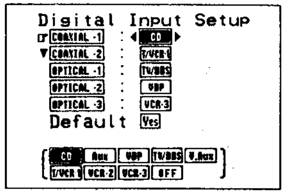
To select the type of component:



COAXIAL 1	CD
COAXIAL 2	T/VCR-1
OPTICAL 1	TV/DBS
OPTICAL 2	VDP
OPTICAL 3	VCR-3

Table 6-6 Initial Settings

※ Select "OFF" if nothing is connected.



Digital Input Setup
☞COAXIAL-1 : ◀CD▶
▼COAXIAL-2 : T/VCR-1
OPTICAL-1 : TV/DBS
OPTICAL-2 : VDP
OPTICAL-3 : VCR-3
Default Yes

[CD] [Aux] [VDP] [TV/DBS] [V.Aux]
[T/VCR-1] [VCR-2] [VCR-3] [OFF]

(screen 17)

Select "Default" to return to the initial settings.
The initial settings are set as shown on Table 6-6.

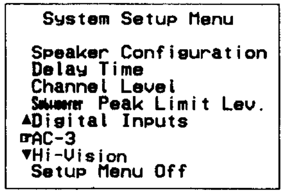
NOTES:
- OPTICAL 3 INPUT is equipped with optical output for digital recording to DAT, MD or Digital VCR.
  Connect the optical recording devices to the input/output of OPTICAL 3 for digital recording.
  For "OPTICAL-3", CD, AUX, VDP, TV/DBS and V.AUX cannot be set.
- When you connect such a recording device to OPTICAL 3 OUTPUT, the output of the device is allowed to be connected only to OPTICAL 3 INPUT.
  Invalid connection may cause a trouble, such as noise arising or serious damage to loudspeakers or amplifiers, etc.

4. After the above settings are completed, press the ENTER button again.
   The "System Setup Menu" screen reappears.

6-7 AC-3

When playing AC-3 sources, the input level is corrected automatically.
Set the dialog normalization function.

1. Use the CURSOR buttons to specify "AC-3" from the System Setup Menu screen. (Screen 18)



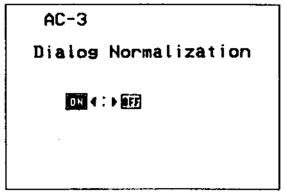
System Setup Menu

Speaker Configuration
Delay Time
Channel Level
Subwoofer Peak Limit Lev.
▲Digital Inputs
☞AC-3
▼Hi-Vision
Setup Menu Off

(screen 18)

2. Press the ENTER button.

The "AC-3" screen appears. (Screen 19)



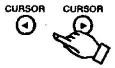
AC-3

Dialog Normalization

ON◀:▶OFF

(screen 19)

3. Use the CURSOR buttons to select "ON" or "OFF".



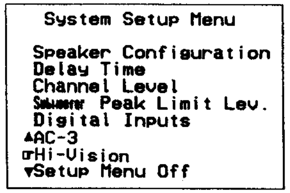
When playing AC-3 sources

NOTE: If dialog normalization is set to "OFF", it may not be possible to set the master volume to greater than −5 dB, depending on the number of speakers and the output channel level setting.
In the HOME THX CINEMA mode as well, even if dialog normalization is set to "ON", it may not be possible to set the master volume to greater than −5 dB depending on the above conditions.

6-8 Hi-Vision Input Setup

Only use this setup when connecting a TV or DBS with Hi-Vision broadcast compatibility to the Hi-Vision input on the rear panel.

1. Use the CURSOR buttons to specify "Hi-Vision" from the System Setup Menu screen. (Screen 20)



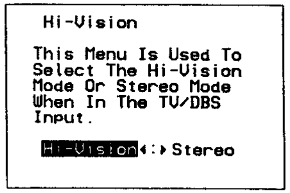
System Setup Menu

Speaker Configuration
Delay Time
Channel Level
Subwoofer Peak Limit Lev.
Digital Inputs
▲AC-3
☞Hi-Vision
▼Setup Menu Off

(screen 20)

2. Press the ENTER button.

The "Hi-Vision" screen appears. (Screen 21)



Hi-Vision

This Menu Is Used To
Select The Hi-Vision
Mode Or Stereo Mode
When In The TV/DBS
Input.

Hi-Vision◀:▶Stereo

(screen 21)

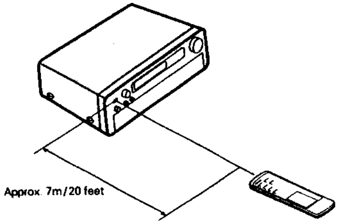
3. Use the CURSOR button to select "Hi-Vision".

4. After the above selection are completed, press the ENTER button again.
   - When the above setup is used, the component connected to the Hi-Vision input on the rear panel can be selected automatically as the program source by switching the input to TV/DBS only in the stereo mode.
   - This completes the system setup operations. Once the system is set up, there is no need to make the settings again unless other components or speakers are connected or the speaker layout is changed.

7 REMOTE CONTROL UNIT

Following the procedure outlined below, insert the batteries before using the remote control unit.

■ Range of operation of the remote control unit



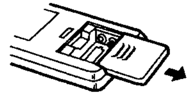
Point the remote control unit at the remote control sensor as shown on the diagram at the left.

NOTES:

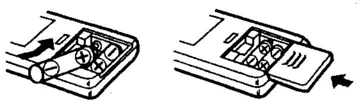
- The remote control unit can be used from a straight distance of approximately 7 meters/20 feet, but this distance will shorten or operation will become difficult if there are obstacles between the remote control unit and the remote control sensor, if the remote control sensor is exposed to direct sunlight or other strong light, or if operated from an angle.
- Neon signs or other devices emitting pulse-type noise nearby may result in malfunction, so keep the set as far away from such devices as possible.

■ Inserting the batteries

1. Open the bottom cover of the remote control unit and remove the battery cover.



2. Insert the two R6P/AA batteries, matching the ⊕ and ⊖ marks on the batteries with those in the case. Close the bottom cover until it clicks shut.



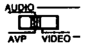
NOTES

- Use only AA, R6P, UM-3 batteries for replacement.
- Be sure the polarities are correct. (See the illustration inside the battery compartment.)
- Remove the batteries if the remote control transmitter will not be used for an extended period of time.
- If batteries leak, dispose of them immediately. Avoid touching the leaked material or letting it come in contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.
- Have replacement batteries on hand so that the old batteries can be replaced as quickly as possible when the time comes.
- The codes that have been learned may be lost if removed batteries are not replaced within about 5 minutes.

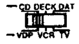
7-1 System code buttons

DENON remote-controllable audio components can be controlled using this unit's remote control unit. Note that some components, however, cannot be operated with this remote control unit.

1. Set to slide switch to "AUDIO" ("AVP/AVC").

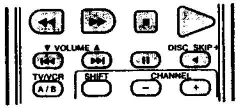


2. Set the slide switch to the position for the component to be operated (CD, DECK or DAT).

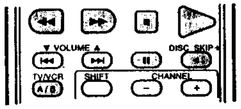


3. Use the buttons shown below to operate the component.
   For details, refer to the respective component's manual.

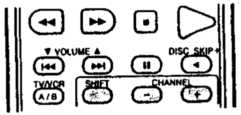
a. For CD players and DATs



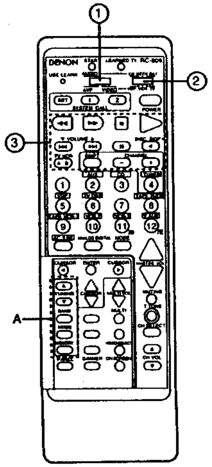
b. For tape decks



c. For tuners



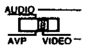
※ The tuner can also be operated with the buttons in block A.



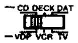
7-2 Preset memory

This remote control unit can be used to operate components of other manufacturers without using the learning function by registering the manufacturer of the component as shown on the diagrams below.

1. Set the slide switch to "VIDEO".



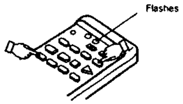
2. Set the slide switch to the component to be registered (VDP, VCR or TV).



Ex.: To preset a VDP in the preset memory

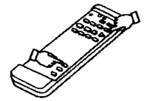
(Keep the POWER button pressed in when performing steps 3 and 4.)

3. Holding in the POWER button, press the button for the corresponding manufacturer in block A.
   (Refer to Table 1.)

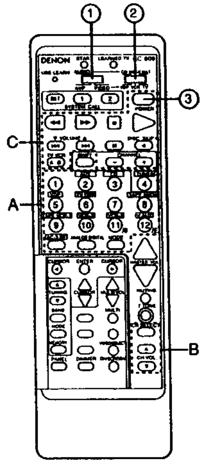


The LEARNED/TX LED flashes.

4. Next, while holding in the POWER button, press the button for the code in block B. (Refer to Table 1.) The operation is completed when the LEARNED/TX LED lights.



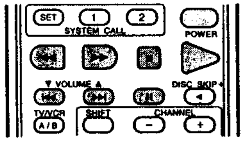
5. To continue registering other components, repeat steps 2 to 4.



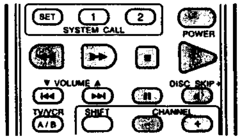
• Operation after components are registered

After components are registered, they can be operated using the buttons in block C shown below. For details, refer to the respective component's manual. Before operating the component, set slide switch ② to the position for that component.

1. VDP



2. VCR



3. TV

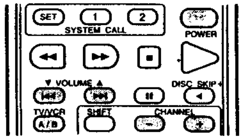


Table 1: Combinations of Personal System Codes for Different Manufacturers

"VDP"

A \ B	CH SELECT	CH VOL. ▲	CH VOL. ▼
1	DENON A	DENON B	DENON C
2(AUX)	—	—	—
3(CD)	MITSUBISHI	—	—
4(TUNER)	PANASONIC	—	—
5(VDP)	—	—	—
6(TV/DBS)	SONY A	SONY B	SONY C
7	PIONEER	—	—
8(TAPE-2MON)	—	—	—
9(TAPE/VCR-1)	SANYO	—	—
10(VCR-2)	SHARP	—	—
11(VCR-3)	—	—	—
12(V.AUX)	PHILIPS	—	—
AC-3RF	RCA	—	—
ANALOG/ DIGITAL	—	—	—
MODE	MAGNAVOX	—	—

"VCR"

A \ B	CH SELECT	CH VOL. ▲	CH VOL. ▼
1	—	—	—
2(AUX)	HITACHI A	HITACHI B	HITACHI C
3(CD)	MITSUBISHI A	MITSUBISHI B	MITSUBISHI C
4(TUNER)	PANASONIC A	PANASONIC B	—
5(VDP)	JVC (VICTOR) A	JVC (VICTOR) B	—
6(TV/DBS)	SONY A	SONY B	SONY C
7	PIONEER	—	—
8(TAPE-2MON)	TOSHIBA A	TOSHIBA B	—
9(TAPE/VCR-1)	SANYO A	SANYO B	—
10(VCR-2)	SHARP A	SHARP B	—
11(VCR-3)	NEC A	NEC B	NEC C
12(V.AUX)	PHILIPS A	PHILIPS B	PHILIPS C
AC-3RF	RCA A	RCA B	—
ANALOG/ DIGITAL	GENERAL ELECTRIC A	GENERAL ELECTRIC B	—
MODE	MAGNAVOX A	MAGNAVOX B	MAGNAVOX C

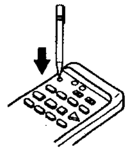
"TV"

B A	CH SELECT	CH VOL. ▲	CH VOL. ▼
1	DENON	—	—
2(AUX)	HITACHI A	HITACHI B	—
3(CD)	MITSUBISHI A	MITSUBISHI B	MITSUBISHI C
4(TUNER)	PANASONIC	—	—
5(VDP)	JVC (VICTOR)	—	—
6(TV/DBS)	SONY	—	—
7	PIONEER	—	—
8(TAPE–2MON)	TOSHIBA	—	—
9(TAPE/VCR–1)	SANYO A	SANYO B	—
10(VCR–2)	SHARP	—	—
11(VCR–3)	NEC A	NEC B	NEC C
12(V.AUX)	PHILIPS A	PHILIPS B	PHILIPS C
AC–3RF	RCA A	RCA B	—
ANALOG/ DIGITAL	GENERAL ELECTRIC A	GENERAL ELECTRIC B	—
MODE	MAGNAVOX A	MAGNAVOX B	MAGNAVOX C

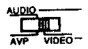
NOTE:
Preset memory function will not work for some models or some codes.
In such case, please use the learning function. (Page 19)

• Clearing the Preset Memory

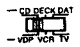
1. Press the USE/LEARN selector button with the tip of a pen, etc., to set the learn mode.



2. Set the slide switch to "VIDEO".

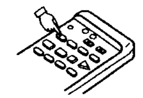


3. Set the program switch to the side to be cleared.

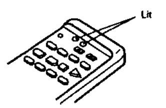


Ex.: To clear the VDP preset memory

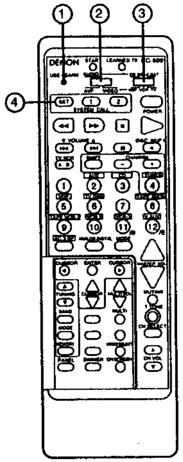
4. Press the SYSTEM CALL SET button, and hold it in for at least four seconds.



5. When both the START and LEARNED/TX LEDs light simultaneously, all the stored codes are cleared.



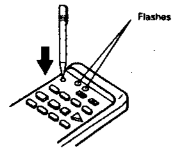
6. Press the USE/LEARN selector button.



7–3 Remote Control Unit Learning Function

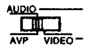
Use the learning function to operate audio components manufactured by companies other than Denon and when your VCR or TV does not operate with the preset memory function.

1. Press the USE/LEARN selector button with the tip of a pen etc., to set the learn mode. Both the START and LEARNED/TX indicators flash.

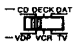


This unit's remote control unit

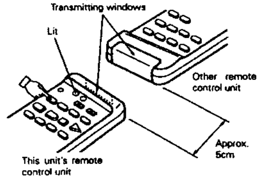
2. Set the program switch to the side to be "learned".
   Set to the AUDIO side for the CD, tape deck or DAT position, to the VIDEO side for the CDP, VCR or TV position.



3. Set the program switch to the position to be "learned".

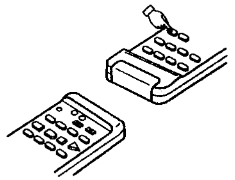


4. Set the remote control units so they are facing each other, then press the button to be "learned" on this unit's remote control unit.

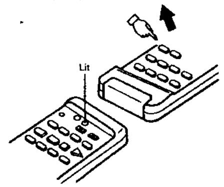


The indicator stops flashing and the START LED lights.
The learnable buttons are the buttons which can be operated with the DENON system codes for the CD player, DAT and tape deck, the buttons which can be operated with the preset memory for the VCR, VDP and TV. For the TV only, however, the buttons in the section indicated "A" on the diagram above can also be "learned". Use these to "learn" TV channels.

5. Check that the START LED is lit, then press the button to be "learned" on the other remote control unit.



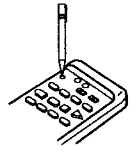
6. Once the START LED turns off and the LEARNED/TX LED lights, release the button on the other remote control unit.



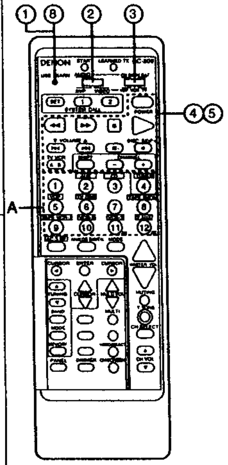
The two LEDs start flashing again.

7. To "learn" other buttons, repeat steps 2 to 6.

8. Once the learning operation is completed, press the USE/LEARN selector button again. The two LEDs stop flashing and the learning mode is cancelled.



Check that the stored codes work properly.



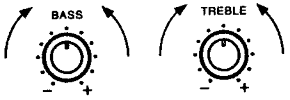
9. For instructions on resetting the "learned" codes, refer to "clearing the Preset Memory" on page 18.'

NOTES:
- Up to 26 codes can be "learned", but this number may be lower if the codes are long.
- If a non–learnable button is pressed or two or more buttons are pressed at once, the two LEDs will once again light when the button(s) is released.
- If the codes could not be stored, the LEARNED/TX LED does not light after the START LED turns off. For limited number of models, codes cannot be stored in RC–809
- If the two LEDs start flashing rapidly after the START LED lights, this means that the memory is already full, and the code you have just attempted to store was not stored.
  To "learn" that code, first perform the resetting operation.

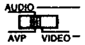
8 OPERATIONS

8–1 Preparations for Play Back

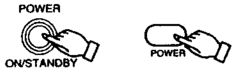
1. Check that all connections are proper.
2. Set to the center position.

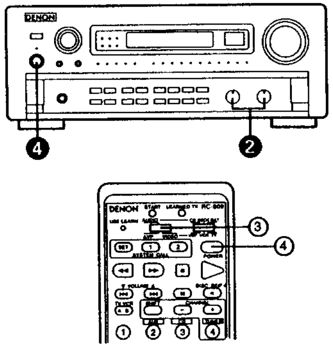

BASS
TREBLE
–
+
–
+

3. Set the remote control unit's slide switch to the AUDIO position.

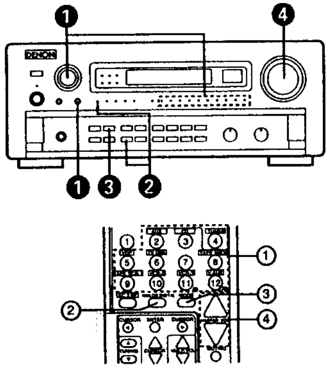

AUDIO
AVP
VIDEO

4. Press the power button to turn the power on.

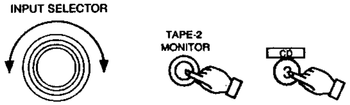

POWER
ON/STANDBY
POWER



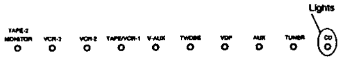
8–2 Playing the Analog program source (Stereo play back)



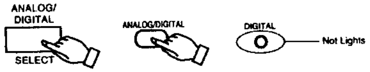
1. Select the source to be played.


INPUT SELECTOR
TAPE-2
MONITOR
CD
3

EX: CD input is selected.

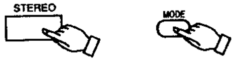

Lights
TAPE-2 MONITOR
VCR-3
VCR-2
TAPE/VCR-1
V-AUX
TV/DBS
VDP
AUX
TUNER
CD

2. Select the ANALOG INPUT

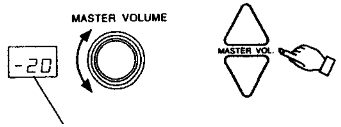

ANALOG/
DIGITAL
SELECT
ANALOG/DIGITAL
DIGITAL
Not Lights

If "DIGITAL" indicator is lit, press the "ANALOG/DIGITAL" button.

3. Select the STEREO mode.

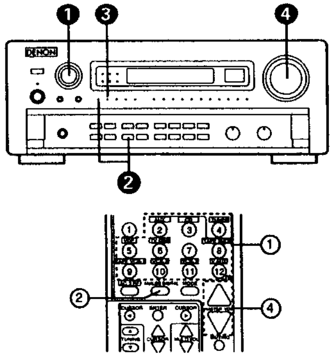

STEREO
MODE

4. Adjust the MASTER VOLUME control.

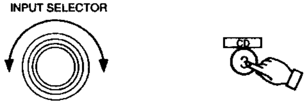

MASTER VOLUME
-20
MASTER VOL.

Volume level (– 60 ~ 0 ~ 18) is displayed.

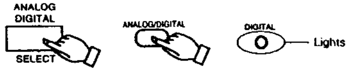
8–3 Playing the digital program source.



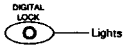
1. Select the program source connected to the digital input terminals you want to play.


INPUT SELECTOR
CD
3

2. Select the digital input.

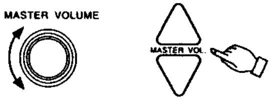

ANALOG
DIGITAL
SELECT
ANALOG/DIGITAL
DIGITAL
Lights

3. Check that the indicator showing that the digital input's program source can be played is lit.


DIGITAL
LOCK
Lights

※ If the indicator is not lit, check that the system setup's input setting (refer to page 13, 14) and the connections are proper, that the component's power is turned on, etc.

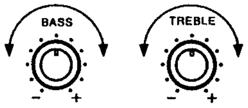
4. Adjust the MASTER VOLUME control.


MASTER VOLUME
MASTER VOL.

NOTE: If a CD–ROM is played, the DIGITAL LOCK LED turns on but no sound is heard.

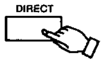
8–4 Adjusting the TONE control

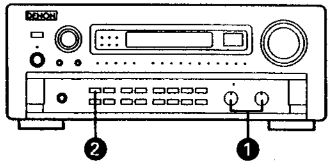
1. Adjust the BASS and TREBLE.


BASS
TREBLE
–
+
–
+

Turn the control clockwise to increase the bass, counterclockwise to decrease it.

2. DIRECT switch
   Use this when you do not want to adjust the sound.

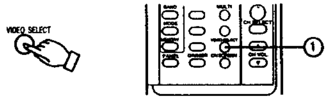




8–5 Simulcast playback

Use this switch to monitor a video source other than the audio source.

1. Press the VIDEO SELECT button repeatedly until the desired source appears on the display.


VIDEO SELECT
1

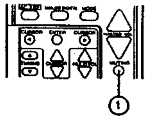
※ Cancelling simulcast playback.
- Select "SOURCE" using the video select button.
- Select the VIDEO & AC-3 RF function.

8–6 Using the muting function

Use this to turn off the audio output temporarily.

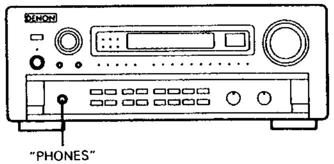
1. Press the MUTING button.

※ Cancelling MUTING mode.
Press the MUTING button again.



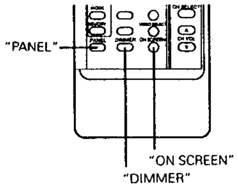
8-7 Listen with headphones

Connect the headphones to the PHONES jack.
The pre-out output is automatically turned off when headphones are connected.



8-8 On-screen display

Each time an operation is performed, a description of that operation appears on the display connected to the unit's VIDEO MONITOR OUT terminal. Also, the unit's operating status can be checked during playback by pressing the remote control unit's ON SCREEN button.
Such information as the position of the input selector and the surround parameter settings is output in sequence.



8-9 Front panel display

Descriptions of the unit's operations are also displayed on the front panel display. In addition, the display can be switched to check the unit's operating status while playing a source by pressing the remote control unit's PANEL button.

8-10 Using the dimmer function.

Use this to change the brightness of the display. The display brightness changes in four steps (bright, medium, dim and off) by pressing the remote control unit's DIMMER button.

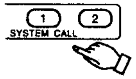
8-11 System call (Remote control unit)

This function allows you to preset frequently used operation patterns in the remote control unit then automatically send a series of up to ten remote control codes with a single button.

Presetting

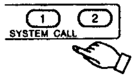
1. Press the SET button.

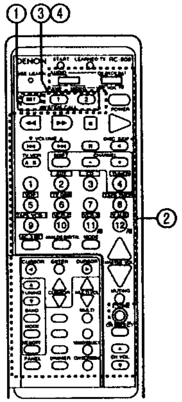
2. Press the buttons for the codes to be sent, changing the position of the slide switch as necessary. (Up to ten buttons can be set.)
   Buttons which have been "learned" and buttons which have been preset can also be selected.
3. Press the SYSTEM CALL button ("1" or "2") at which you want to store the codes.
   The setting is now stored.



Recalling

4. Press the SYSTEM CALL button ("1" or "2") at which the desired codes have been stored.
   The series of codes is now sent.



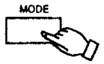


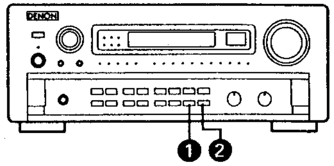
8-12 Multi-Source REC OUT recording/playback

The Multi-Source/REC OUT function allows you to record a source other than the source currently playing or to output its signal to the MULTI SOURCE output terminal.

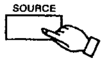
■ Recording a source other than the one currently playing (REC OUT mode)

1. Press the REC/MULTI MODE button ❶ until "REC OUT SOURCE" appears on the display.





2. Select the source to be output to the recording output terminal.
   Press the REC/MULTI SOURCE button ❷ repeatedly until the desired source appears on the display



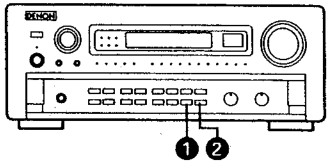
※ The signals of the source expect the digital input selected with the REC OUT mode are also output from the MULTI SOURCE AUDIO/VIDEO OUT terminals.
※ Digital signals are only output from the recording output terminal after conversion into analog signals when playing the digital input in the stereo mode.
※ To cancel the REC OUT mode.
Press the REC/MULTI MODE button or the REC/MULTI SOURCE button repeatedly until "SOURCE" appears on the display.

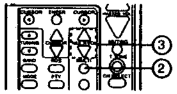
■ Playing a source other than the one currently playing in a different room (MULTI mode)

1. Press the REC/MULTI MODE ❶ button repeatedly until "M-SOURCE SOURCE" appears on the display.

2. Select the source to be output to the MULTI SOURCE output terminal. Press the REC/MULTI SOURCE button ❷ repeatedly until the desired source appears open the display.

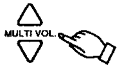
SOURCE
MULTI





※ When the MULTI button on the remote control unit is pressed, the source to be output from the MULTI SOURCE terminals can be selected.
(This cannot be selected when the main unit is in the REC OUT mode.)
※ The digital signals are not output from the MULTI SOURCE AUDIO/VIDEO OUT terminals.
※ To cancel the MULTI mode
Press the REC/MULTI MODE button or the MULTI button on the remote control unit repeatedly until "SOURCE" appears on the display.

3. The output level of the MULTI SOURCE AUDIO terminal can be controlled using the MULTI VOLUME UP and DOWN buttons ③ on the remote control unit.



NOTE:
The signals of the source selected in the MULTI mode are also output from the TAPE and VCR recording output terminals.

9 USING THE SURROUND FUNCTION

9-1 Dolby Surround & Home THX Cinema Surround

This unit is equipped with digital signal processing sections for decoding and reproducing movie soundtracks the same way as in movie theaters

9-1-1 Dolby Surround

1. **DOLBY SURROUND PRO LOGIC**
   When using conventional video tapes, laser discs, TV programs or CDs with the DOLBY SURROUND mark, Dolby Pro Logic provides extremely natural sound movement and positioning, immersing you in the on-screen action. Pro Logic uses a directional emphasis circuit to decode four output channels (front left and right, center and surround) from the two audio channels provided on the software.

2. **DOLBY SURROUND AC-3**
   When you connect an LD player with an AC-3 RF output and play laser discs with the DOLBY SURROUND AC-3 DIGITAL mark, you can experience improved sound spatiality, positioning, and impact compared with Pro Logic. This is because Dolby AC-3 delivers up to 5 totally discrete, full frequency audio channels (front left and right, center, and surround left and right), plus a bass-only effects channel. Since the signal is digital from the input of the program source until to the output of this unit, a higher quality and clarity of surround sound results.

   Besides laser disc, this unit will also accept future digital formats with Dolby AC-3 such as SD Digital Video Discs and certain digital cable, satellite, and television broadcasts.

9-1-2 HOME THX CINEMA surround

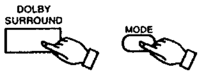
Use the Home THX Cinema mode along with the Dolby Surround processing described above to experience movie sound in your own listening room that matches what you would hear in the best movie theater or movie production studio. Use the Home THX Cinema mode for all movies on disc, tape, or television broadcast. For optimal multichannel sound performance, we recommend the use of THX power amplifiers (such as the DENON POA-T2 and POA-T3) and THX loudspeaker systems.

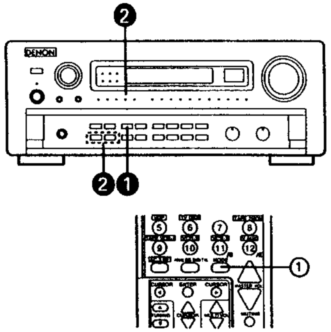
Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under Canadian patent number 1,037,877. "Dolby," "AC-3", "Pro Logic," and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Manufactured under license from Lucasfilm Ltd. U.S. patent numbers 5,043,970; 5,189,703; and 5,222,059. Foreign patents pending. Lucasfilm and THX are registered trademarks of Lucasfilm Ltd.

9-2 Using the Dolby Surround Pro Logic mode

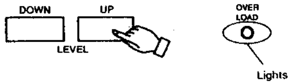
1. Set the Dolby Surround mode.





※ Conventional program sources will automatically be decoded with Dolby Pro Logic, while AC-3 program sources will be decoded with Dolby AC-3.

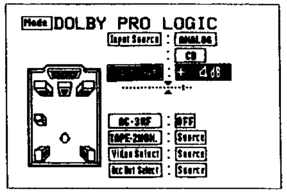
2. If necessary, adjust the input level when analog sources are used to obtain maximum dynamic range without overload.



Set so that the indicator does not light at places where the volume is high.

※ For digital input sources, there is no need to adjust the input level. (These buttons will not operate and the indicator will not light.)

※ The current input source, input level, etc., can be checked on the on-screen display. (screen 22)



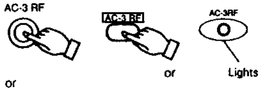
Mode DOLBY PRO LOGIC
Input Source : ANALOG
: CD
: + 4 dB
AC-3RF : OFF
TAPE-2MON. : Source
Video Select : Source
Rec Out Select : Source

(screen 22)

3. Play a program source with the DOLBY SURROUND or DOLBY SURROUND AC-3 DIGITAL mark.

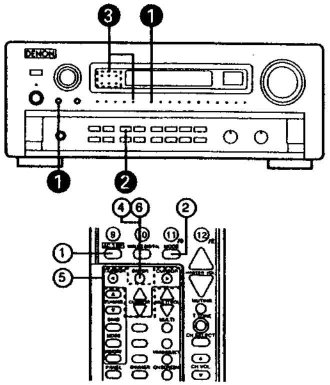
9-3 Using the Dolby Surround AC-3 mode

1a. AC-3 RF input
Select the AC-3 RF input program source.

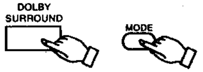


or

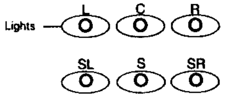
1b. Digital input
Select the digital input. Refer to page 21, 8-3, 1, 2 and 3.



2. Set the Dolby Surround mode.

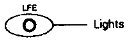


3. Play a program source with the DOLBY SURROUND AC-3 DIGITAL mark or a program source with Dolby AC-3 digital formats.
The indicators below showing the signals included in the software light. (The number of channels differs according to the software.)



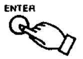
L:	Front Left ch
C:	Center ch
R:	Front Right ch
SL:	Surround Left ch
S:	Mono Surround ch
SR:	Surround Right ch

Also, the following indicator lights if the software contains low frequency effect sounds:

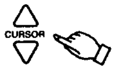


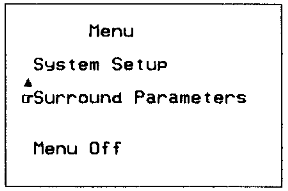
4-1. Adjust the sound for the program source using the on-screen display.

4-2. Press the ENTER button.



4-3. Use the CURSOR buttons to specify "Surround Parameters". (screen 23)




Menu

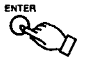
System Setup

▲
☞Surround Parameters

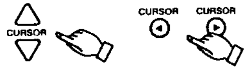
Menu Off

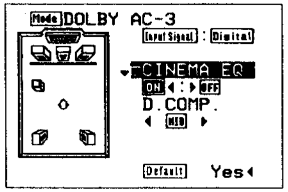
(screen 23)

4-4. Press the ENTER button to switch the screen.



5. Use the CURSOR buttons to move the cursor on the screen and set the parameters. (screen 24)




Mode DOLBY AC-3

Input Signal : Digital

CINEMA EQ

ON ◀ : ▶ OFF

D.COMP.

◀ MID ▶

Default Yes◀

(screen 24)

6. After the above settings are completed, press the ENTER button.

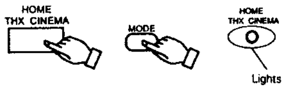
- **Surround parameters**

CINEMA	Use "CINEMA equalizer" if dialogues sound scratchy when playing movie software. (The higher frequency component is lowered.) (Only effective in the Dolby Pro Logic, Dolby AC-3 and WIDE SCREEN modes.)
D. COMP	"Dynamic Range Compression" compresses the dynamic range. This is only effective for Dolby AC-3 program sources. — There are four parameters: "OFF" ↔ "LOW" ↔ "MID" ↔ "HIGH"

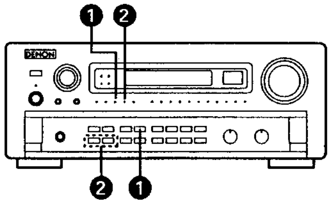
NOTE: When "Default" is selected and the ◀ cursor button is pressed, "CINEMA EQ" and "D.COMP" are automatically set to "OFF".

9-4 Using the Home THX Cinema mode with Dolby Surround Pro Logic

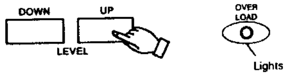
1. Set the HOME THX CINEMA mode.



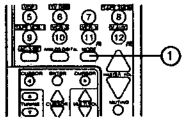
Select the HOME THX CINEMA mode for all movies on disc, tape, or television broadcast. The Home THX Cinema mode is activated simultaneously with either Dolby Surround Pro Logic or Dolby Surround AC-3. The THX processing will allow you to hear the sound as if you were in the best movie theater or movie production studio.



2. If necessary, adjust the input level when analog sources are used to obtain maximum dynamic range without overload. (screen 25)



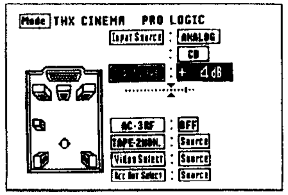
Set so that the indicator does not light at places where the volume is high.



※ For digital input sources, there is no need to adjust the input level. (These buttons will not operate and the indicator will not light.)

※ The current input source, input level, etc., can be checked on the on-screen display.

3. Play a program source with the DOLBY SURROUND or DOLBY SURROUND AC-3 DIGITAL mark.


Mode THX CINEMA PRO LOGIC

Input Source : ANALOG

: CD

: + 4dB

AC-3RF : OFF

TAPE-2MON. : Source

Video Select : Source

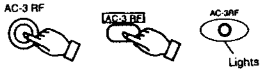
Rec Out Select : Source

(screen 25)

9-5 Using the Home THX Cinema mode with Dolby Surround AC-3

1a. AC-3 RF input

Select the AC-3 RF input program source.

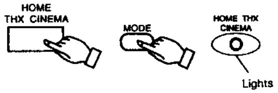


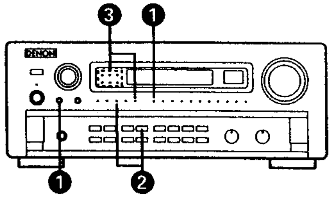
or

1b. Digital input

Select the digital input. Refer to page 21, 8-3, 1, 2 and 3.

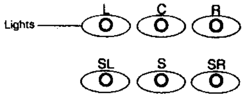
2. Set the Home THX Cinema mode.





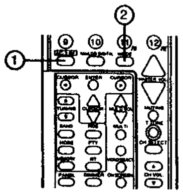
3. Play a program source with the DOLBY SURROUND AC-3 DIGITAL mark or a program source with Dolby AC-3 digital formats.

The indicators below showing the signals included in the software light. (The number of channels differs according to the software.)

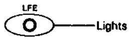


L: Front Left ch
C: Center ch
R: Front Right ch

SL: Surround Left ch
S: Mono Surround ch
SR: Surround Right ch



Also, the following indicator lights if the software contains low frequency effect sounds:



9-6 DSP surround simulation

This unit is equipped with a high precision D.S.P. (Digital Signal Processor) for processing signals digitally to simulate sound fields. Select the surround mode according to the playback source and adjust the parameters according to the conditions in the listening room to achieve a realistic, powerful sound. These surround modes can be used with program sources not recorded in Dolby surround except wide screen mode.

Types of surround modes and their characteristics

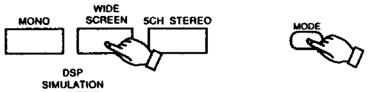
1	Wide Screen	Use this to enjoy program sources, with the atmosphere of a movie theater. This mode is suited for program sources recorded in Dolby surround or Dolby AC-3.
2	Mono	Use this when playing monaural signals, for example AM broadcasts or news programs.
3	5ch Stereo	The signals of the left and right channels are distributed to the different speakers to achieve a stereo sound from all directions at the listening position.
4	Super Stadium	Use this to enjoy program sources such as football or baseball games with the atmosphere of a stadium.
5	Rock Arena	The powerful reverberations of this mode produce a sound field which recreates the excitement of live concerts. This mode is effective for rock, popular music, etc.
6	Jazz Club	This mode creates the sound field of a live house with a low ceiling and hard reverberations. The result is that the artist seems to be performing right before your eyes.
7	Classic Concert	This mode creates a sound field simulating a large concert hall, rich in reverberation. This mode is characterized by composed acoustics, and is perfect for playing classical music, etc.
8	Matrix	Use this to enjoy stereo music sources with rich reverberations.

Personal Memory Plus function .... for EASY TO USE

This unit automatically stores the surround mode adding effects for all input sources. The corresponding surround mode is recalled automatically each time an input source is selected.

9-7 Using the DSP surround simulation

1. Select the surround mode according to the input source.



DSP SIMULATION

The surround mode switches in the following order each time the DSP SIMULATION button is pressed:

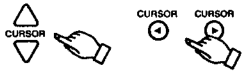
→SUPER STADIUM → ROCK ARENA → ROCK ARENA
MATRIX ← CLASSIC CONCERT ←

2. Press the ENTER button and call out the "Menu" screen from the on-screen display.

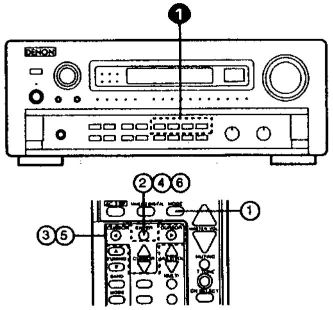
3. Use the CURSOR buttons to specify "Surround Parameters". (screen 26)

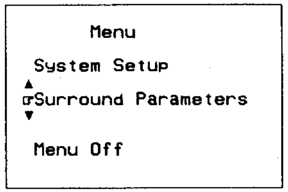
4. Press the ENTER button.
   The screen switches.

5. Move the cursor on the screen and make the various settings. (screen 27)



6. After the above settings are completed, press the ENTER button.

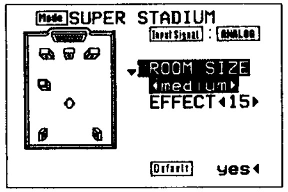



Menu

System Setup
▲
☞Surround Parameters
▼

Menu Off

(screen 26)


Mode SUPER STADIUM
Input Signal : ANALOG
▼ROOM SIZE
◂medium▸
EFFECT◂15▸
Default yes◂

(screen 27)

- **Surround modes and parameters**

CINEMA	Use "CINEMA equalizer" if dialogues sound scratchy when playing movie software. (The higher frequency component is lowered.) (Only effective in the Dolby Pro Logic, Dolby AC-3 and WIDE SCREEN modes.)
ROOM SIZE	"Room size" refers to the size of the sound field. — There are five parameters: "Small" ↔ "med.S." ↔ "medium" ↔ "med.L." ↔ "large"
EFFECT LEVEL	"Effect level" refers to the strength of the effect sounds. If the sound is distorted or seems strange, lower the level. Parameter "1" ~ "15"
DELAY	This can be set to between 0 and 360 msec for the MATRIX mode.
D. COMP	"Dynamic Range Compression" compresses the dynamic range. This is only effective for Dolby AC-3 program sources. — There are four parameters: "OFF" ↔ "LOW" ↔ "MID" ↔ "HIGH"

NOTE: When "Default" is selected and the ◀ cursor button is pressed, "CINEMA EQ" and "D.COMP" are automatically set to "OFF", "ROOM-SIZE" is set to "medium", "EFFECT LEVEL" is set to "10" and "DELAY TIME" is set to "30 ms".

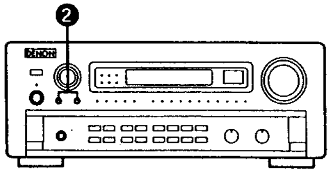
10 LAST FUNCTION MEMORY

- This unit is equipped with a last function memory which stores the input and output setting conditions as they were immediately before the power is switched off.
  This function eliminates the need to perform complicated resettings when the power is switched on.
- This unit is also equipped with a back-up memory. This function provides approximately one week of memory storage with the power cord disconnected.

11 INITIALIZATION OF THE MICROPROCESSOR

When the indication of the FL display is not normal or when the operation of the unit does not shows the reasonable result, the initialization of the microprocessor is required by the following procedure.

1. Switch off the unit and remove the AC power cord from the wall outlet.
2. Hold the following AC-3 RF button and TAPE-2 MONITOR button, and plug the power cord into the outlet.
3. Check that the entire display is flashing with an interval of about 1 second, and release your fingers from the 2 buttons.
4. Switch on the unit and the microprocessor will be initialized.



12 TROUBLESHOOTING

If a problem should arise, first check the following:
1. **Are the connections correct?**
2. **Have you operated the amplifier according to the Operating Instructions?**
3. **Are the speakers, turntable, and other components operating properly?**

If this unit is not operating properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. Disconnect the power immediately and contact your store of purchase.

	Symptom	Cause	Measures	Page
During listening to CDs, tapes	DISPLAY does not light and no sound is produced when POWER switch turned on.	• Power cord not plugged in securely.	• Check that power cord is plugged in securely.	5~8
	DISPLAY lights but no sound is produced.	• Incomplete speaker cord connections. • Input selector not set at proper position. • Volume control turned to minimum. • Muting is on. • Digital signals not input Digital input selected.	• Connect securely. • Set to proper position. • Turn up to an appropriate level. • Press remote control unit MUTING button to turn muting off. • Input digital signals or select input jacks to which digital signals are being input.	5~8 20,21 20,21 21 21
	No sound produced from one side.	• Incomplete speaker cord connections. • Incomplete input / output cord connections.	• Connect securely. • Connect securely.	8 5~8
	Position of instruments reversed for stereo mode.	• Left and right speakers or left and right input/output cords connected inversely.	• Check left/right connections.	5~8
Remote control unit	This unit does not operate properly when remote control unit is used.	• Batteries dead. • Remote control unit too far from receiver. • Obstacle between receiver and remote control unit. • Different button is being pressed. • ⊕ and ⊖ ends of battery inserted in reverse.	• Replace with new batteries. • Move closer. • Remove obstacle. • Press the proper button. • Insert batteries properly.	16 16 16 16

13 SPECIFICATIONS

- **Audio section**

(Analog)	
Input sensitivity / input impedance:	200 mV/47 kΩ / kohms
Frequency response:	10 Hz ~ 100 kHz: +0, −3 dB (DIRECT mode)
S / N:	105 dB (DIRECT mode)
Distortion:	0.005% (20 Hz ~ 20 kHz) (DIRECT mode)
Rated output / maximum output:	1.2 V/8 V
Maximum headphones output:	284 mW (8 Ω/ohms)
(Digital)	
D / A output:	Rated output – 2 V (at 0 dB playback) Total harmonic distortion – 0.005% (1 kHz, at 0 dB) S/N ratio – 102 dB Dynamic range – 96 dB
Digital input:	Format – Digital audio interface

- **Video section**

(Standard video jacks)	
Input / output level and impedance:	1 Vp-p, 75 Ω / ohms
Frequency response:	5 Hz ~ 10 MHz +0, −3 dB
(S-video jacks)	
Input / output level and impedance:	Y (brightness) signal – 1 Vp-p, 75 Ω/ohms C (color) signal – 0.286 Vp-p, 75 Ω/ohms
Frequency response:	5 Hz ~ 10 MHz +0, −3 dB

- **General**

Power supply:	AC 230 V, 50 Hz
Power consumption:	60 W
Maximum external dimensions:	434 (W) × 167 (H) × 396 (D) mm (17-3/32" × 6-37/64" × 15-19/32")
Weight:	13.5 kg (29 lbs 13 oz)

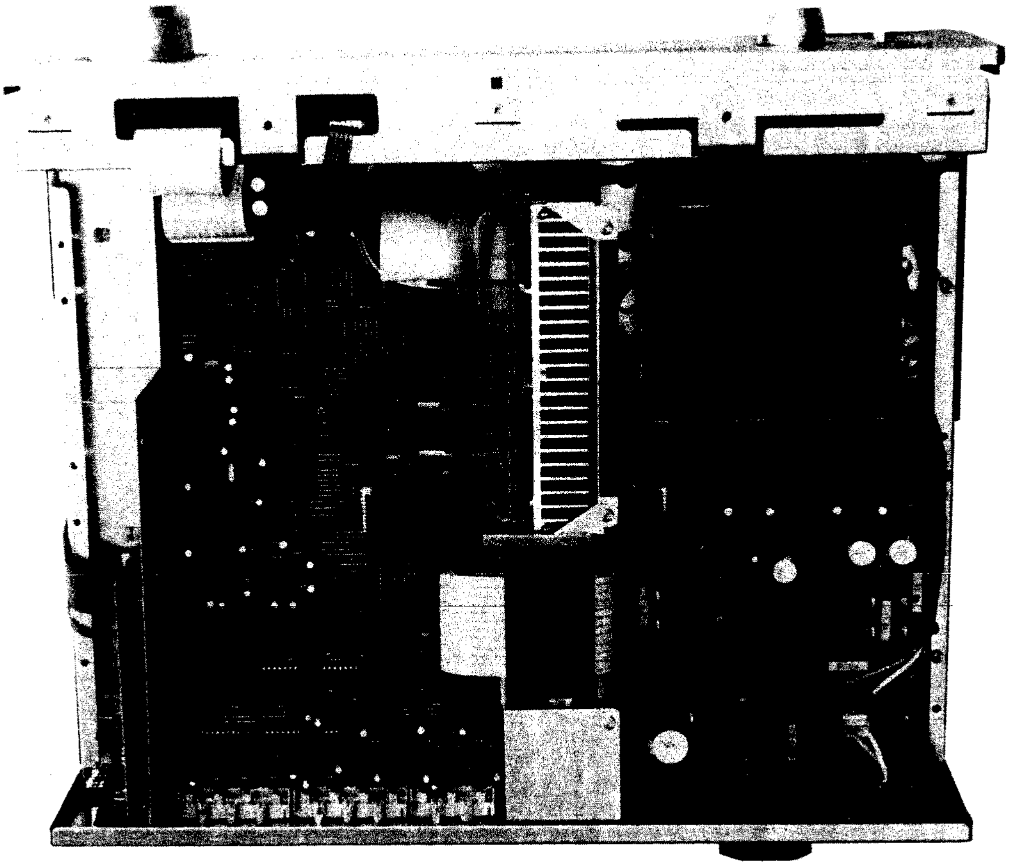
- **Remote control unit (RC-809)**

Batteries:	R6P/AA Type (two batteries)
External dimensions:	70 (W) × 215 (H) × 19 (D) mm (2-3/4" × 8-15/32" × 3/4")
Weight:	180 g (Approx. 6 oz) (including batteries)

* For purposes of improvement, specifications and design are subject to change without notice.

WIRE ARRANGEMENT

In case of wires require unclasping or loosening to move the location to perform adjustment or part replacement, be sure to rearrange them neatly to restore properly in the same location as they were originally placed, or causing to produce a noise may occasionally occur.

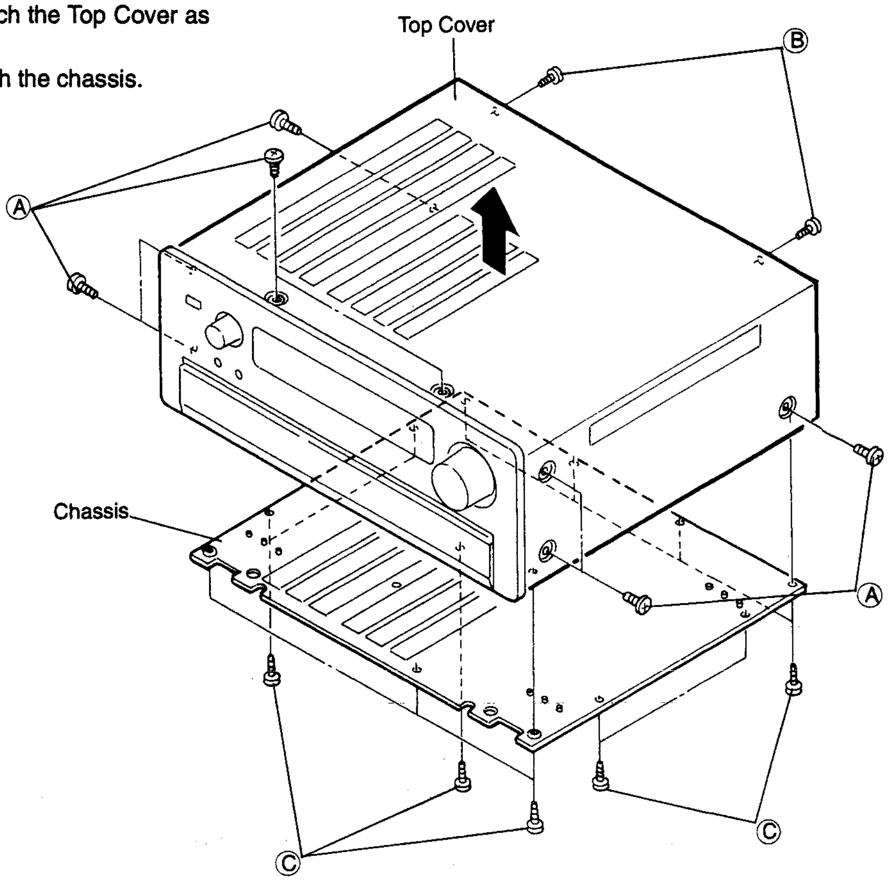


DISASSEMBLY

(To reassemble reverse disassembly)

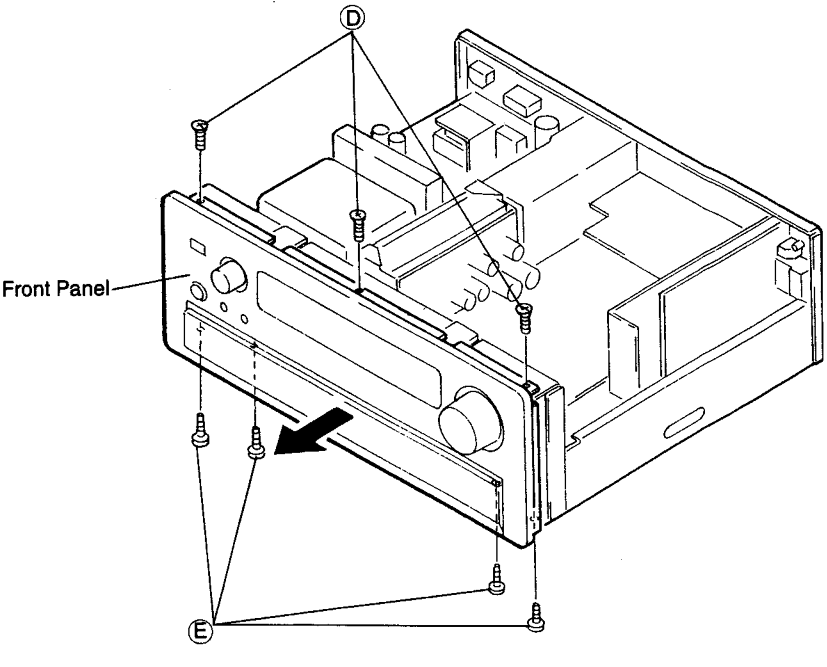
1. Top Cover and Chassis

1) Remove 8 screws Ⓐ fixing the Top Cover and 2 screws Ⓑ mounting the Rear Panel. Detach the Top Cover as shown in arrow direction.
2) Remove 12 screws Ⓒ and detach the chassis.



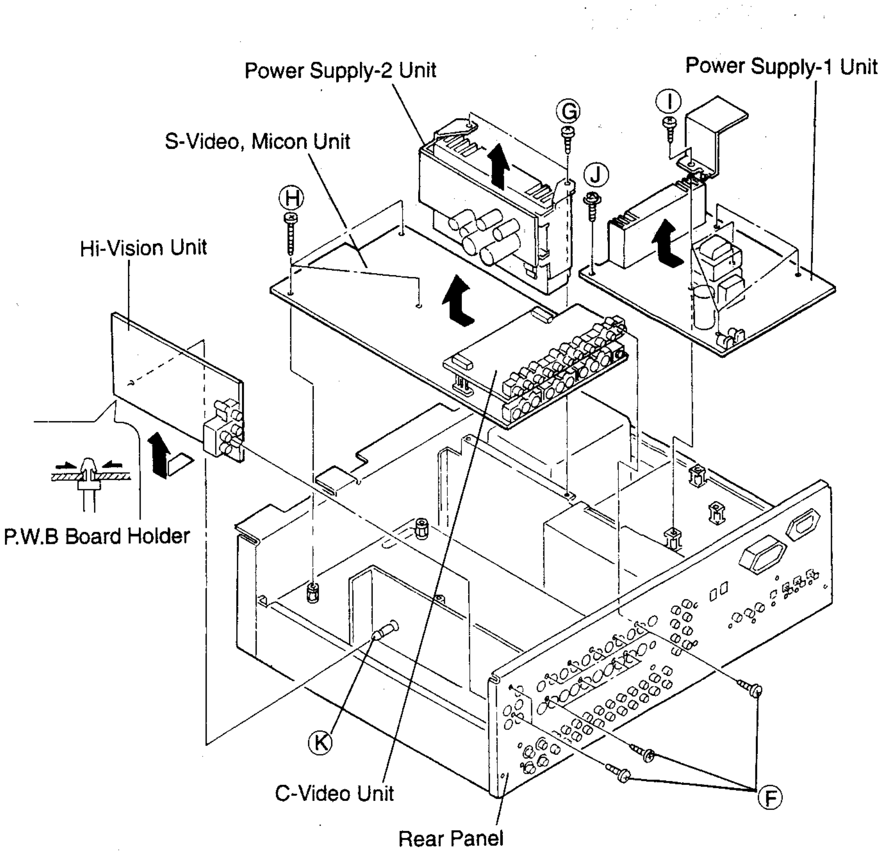
2. Front Panel

1) Remove 3 upper screws Ⓓ and 4 screws Ⓔ , detach the Front Panel as shown in arrow direction.



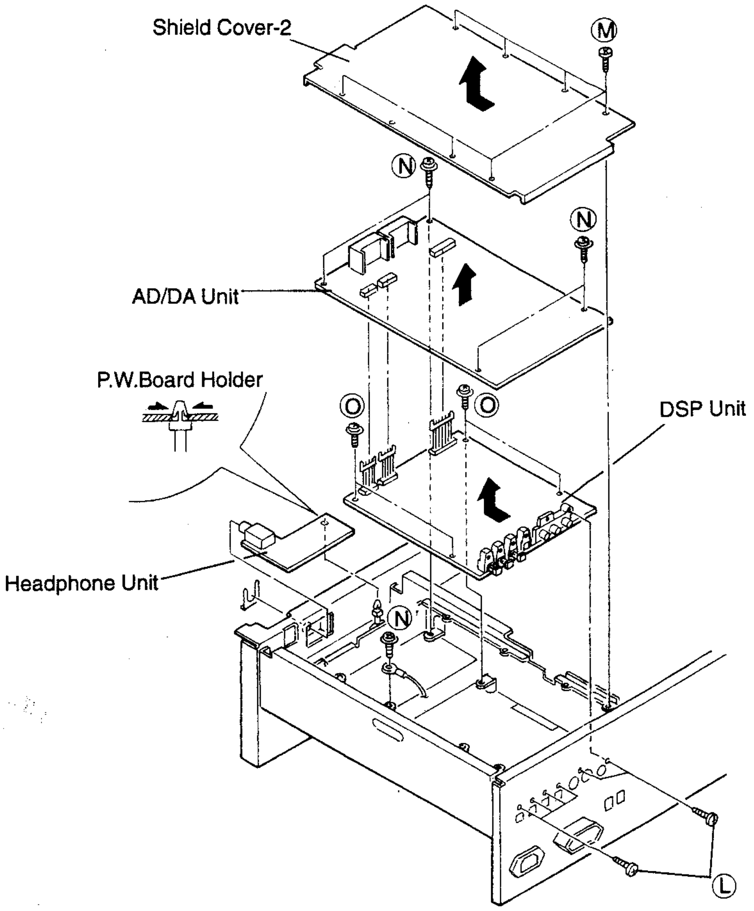
3. Each Upper P.W.Board

1) Remove 11 screws Ⓕ mounting the Rear Panel.
2) Remove 2 screws Ⓖ and detach the Power Supply-2 Unit as shown in arrow direction.
3) Remove 3 screws Ⓗ, and detach the S-Video, Micon Unit as shown in arrow direction.
4) Remove 5 screws Ⓘ fixing the transformer shield and a screw Ⓙ, and detach the Power Supply-1 Unit as shown in arrow direction.
5) Undo a P.W.Board holder Ⓚ fixing the Hi-Vision Unit, then detach the Hi-Vision Unit as shown in arrow direction.

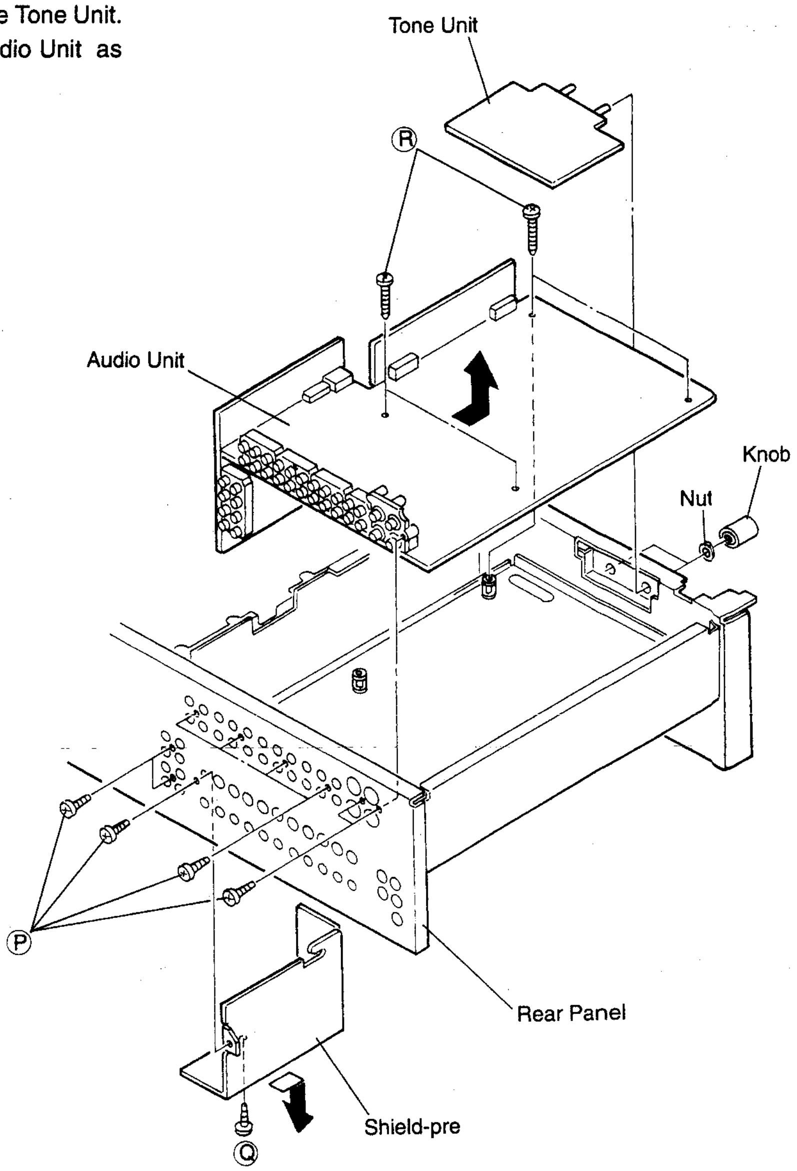

Power Supply-2 Unit
Power Supply-1 Unit
Ⓖ
Ⓘ
S-Video, Micon Unit
Ⓙ
Ⓗ
Hi-Vision Unit
P.W.B Board Holder
Ⓚ
C-Video Unit
Rear Panel
Ⓕ

4. Each P.W.Board from Bottom Side

1) Remove 6 screws Ⓛ mounting the Rear Panel.
2) Remove 7 screws Ⓜ and detach the Shield Cover-2 as shown in arrow direction.
3) Remove 4 screws Ⓝ and a screw Ⓝ, and detach the AD/DA Unit as shown in arrow direction.
4) Remove 4 screws Ⓞ, then detach the DSP Unit as shown in arrow direction.
5) Undo a P.W.Board Holder and detach the Headphone Unit.


Shield Cover-2
Ⓜ
Ⓝ
Ⓝ
AD/DA Unit
P.W.Board Holder
Ⓞ
Ⓞ
DSP Unit
Headphone Unit
Ⓝ
Ⓛ

6) Remove 9 screws Ⓟ mounting the Rear Panel.
7) Remove a screw Ⓠ and detach the Shield-pre.
8) Remove 2 Knobs and 2 Nuts, and detach the Tone Unit.
9) Remove 4 screws Ⓡ , then detach the Audio Unit as shown in arrow direction.


Tone Unit
Ⓡ
Audio Unit
Knob
Nut
Ⓟ
Rear Panel
Shield-pre
Ⓠ

FUNCTION OF NEW CIRCUIT

Circuit Description

DOLBY AC-3

DOLBY AC-3 is a format of new surround signal reproduces maximum 5 channels, i.e. FRONT-LEFT, -RIGHT, CENTER and REAR-LEFT, -RIGHT ;plus exclusive subwoofer signal (0.1ch),totally 5.1 channels from the exclusive digital signal. Following is the featuring points of AC-3.

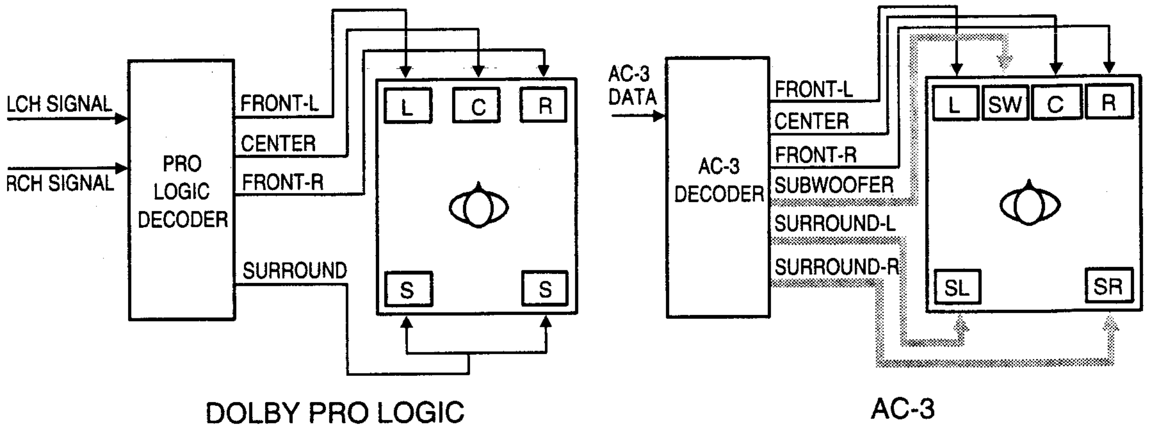
(1) Makes surround channel into stereo.

(2) Provides optimum separation due to independent processing of each channel signal.
(AC-3: More than 80dB, PRO LOGIC: Approx.25~40dB)

(3) Resultant surpassed orientation feeling and movement feeling obtained from uniform frequency characteristic.
(AC-3: 20Hz ~20kHz all channels, PRO LOGIC: 20Hz~20kHz FRONT, CENTER channels
20Hz~7kHz SURROUND channels)

(4) With the high- efficient signal compressing technique, one digital cable permits transmission maintaining the above features.

Comparative Diagram of PRO LOGIC and AC-3



Two kinds of input signals: one corresponds "AC-3RF" signal emitting from LD player; the other is universal optical or coaxial digital format "IEC958" over lapped with "AC-3 exclusive" digital signal. AC-3RF signal is connected via the terminals"AC-3RF OUT" equipped with AC-3 corresponding LD player and "AC-3RF" input of AVP-A1 with a general coaxial digital cable. An applied signal to AVP-A1 goes through demodulator IC(IC26), delivered to DSP(IC1) through input selector (IC14), DIR(IC31) and executed decode processing of AC-3.

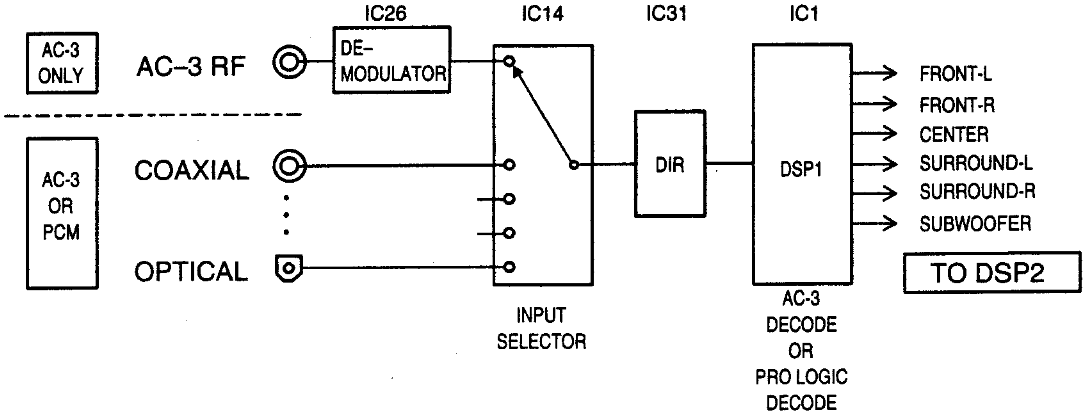
The other one is connected in the same way as universal optical or coaxial digital signal. AVP-A1 corresponds with automatic shifting of AC-3 and other signal (PCM) according to input signal.

The signal of each input terminal is delivered to selector (IC14) and applied the same process as to AC-3RF afterward.

AC-3 data and PCM data are transmitted with a common line.

DSP (IC1) performs AC-3 decoding process, DOLBY PRO LOGIC process and PCM digital process and PCM digital process by shifting. Decoded signal to each channel after passed through DSP2 (IC2) is D/A converted and delivered to volume control.

Block Diagram of AC-3, PCM Input Section (1U-2928A-1)


IC26
IC14
IC31
IC1
AC-3 ONLY
AC-3 RF
DE-MODULATOR
AC-3 OR PCM
COAXIAL
OPTICAL
DIR
DSP1
FRONT-L
FRONT-R
CENTER
SURROUND-L
SURROUND-R
SUBWOOFER
TO DSP2
INPUT SELECTOR
AC-3 DECODE OR PRO LOGIC DECODE

THX

THX is a tone quality improving technique of surround reproduction, to perform signal processing by positively combining either one of AC-3 or DOLBY PRO LOGIC.

THX makes the following additional process to AC-3 and DOLBY PRO LOGIC.

(1) Filtering process based on human auditory sense and sound characteristic of movie theater.

(2) Makes non-inter relation for surround channels.

(3) Non-clipping process for subwoofer channel.
AVP-A1 executes THX process with DSP2(IC2) to AC-3 or PRO LOGIC signal processed by DSP1 (IC1). Every operation mode shifting of surround mode is performed by micro computer. (Refer to Block Diagram)

CONTROL ADVISABILITY OF EACH MODE

	FRONT L LEV.	FRONT R LEV.	CENTER LEVEL	REAR L LEV.	REAR R LEV.	S. WOOFER LEVEL	INPUT LEVEL	ROOM SIZE	EFFECT LEVEL	DELAY TIME	CINEMA	DYNAMIC ON/OFF	TEST TONE
DIRECT	O	O	X	X	X	O*4	X	X	X	X	X	O*7	O*8
STEREO	O	O	X	X	X	O*3	O*6	X	X	X	X	O*7	
MONO	O*5	O*5	O*5	X	X	O*3	O*6	X	X	X	X	O*7	
5ch STEREO	O	O	O*1	O*2	O*2	O*3	O*6	X	X	X	X	O*7	
DOLBY SURROUND	O	O	O*1	O*2	O*2	O*3	O*6	X	X	X	O	O*7	
THX CINEMA	O	O	O*1	O*2	O*2	O*3	O*6	X	X	X	X	X	
WIDE SCREEN	O	O	O*1	O*2	O*2	O*3	O*6	O	O	X	O	O*7	
SUPER STADIUM	O	O	O*1	O*2	O*2	O*3	O*6	O	O	X	X	O*7	
ROCK ARENA	O	O	O*1	O*2	O*2	O*3	O*6	O	O	X	X	O*7	
JAZZ CLUB	O	O	O*1	O*2	O*2	O*3	O*6	O	O	X	X	O*7	
CLASSIC CONCERT	O	O	O*1	O*2	O*2	O*3	O*6	O	O	X	X	O*7	
MATRIX	O	O	O*1	O*2	O*2	O*3	O*6	X	X	O	X	O*7	

O : Feasible to control　　X : Infeasible to control

O*1 : According to the contents of set up menu, when no center speaker is provided, with no controlling and sets -∞ data to center electronic volume.

O*2 : According to the contents of set up menu, when no rear speaker is provided, with no controlling and sets - ∞ data to rear electronic volume.

O*3 : According to the contents of set up menu, when no woofer is provided, with no controlling and sets - ∞ data to woofer electronic volume.

O*4 : No controlling when front speaker is set to LARGE.

O*5 : According to the contents of set up menu, when no center speaker is provided, controls front L/R and not to control center.
And, when center speaker is set to SMALL or LARGE, controls center and not to control front L/R.

O*6 : Feasible to control only at analog input. Note that, this function corresponds to each input channel.

O*7 : Feasible to control only at AC-3 input.

O*8 : Feasible to control TEST TONE in all modes of set up menu.

Additional note : Each mode's FRONT/CENTER/REAR L, R/S. WOOFER DELAY should be set according to the setting contents of delay time for set up menu.

DIGITAL/ANALOG, SURROUND MODE IN EACH INPUT FUNCTION AND INITIAL SETTING OF DIGITAL FUNCTION

INPUT FUNCTION	DIGITAL/ANALOG	SURROUND MODE	DIGITAL FUNCTION
CD	ANALOG	STEREO	D1
TUNER	FORCED ANALOG	STEREO	INFEASIBLE TO SET
AUX	ANALOG	STEREO	OFF
VDP	ANALOG	DOLBY SURROUND	D4
TV/DBS	ANALOG	STEREO	D3
V. AUX	ANALOG	STEREO	OFF
T/VCR-1	ANALOG	WIDE SCREEN	D2
VCR-2	ANALOG	STEREO	OFF
VCR-3	ANALOG	STEREO	D5
AC3 RF	FORCED DIGITAL	DOLBY AC-3	AC-3 RF
TAPE2	FORCED ANALOG	STEREO	INFEASIBLE TO SET

INITIAL SETTING OF EACH MODE

	FRONT L LEV.	FRONT R LEV.	CENTER LEVEL	REAR L LEV.	REAR R LEV.	S. WOOFER LEVEL	INPUT LEVEL	ROOM SIZE	EFFECT LEVEL	DELAY TIME	CINEMA	DIALOG ✻1	DYNAMIC ✻1
DIRECT	0 dB	0 dB	—	—	—	0 dB	—	—	—	—	—	ON	OFF
STEREO	0 dB	0 dB	—	—	—	0 dB	0 dB	—	—	—	—	ON	OFF
MONO	—	—	0 dB	—	—	0 dB	0 dB	—	—	—	—	ON	OFF
5ch STEREO	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	—	—	—	—	ON	OFF
DOLBY SURROUND	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	—	—	—	OFF	ON	OFF
THX CINEMA	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	—	—	—	—	—	—
WIDE SCREEN	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	MED	10	—	OFF	ON	OFF
SUPER STADIUM	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	MED	10	—	—	ON	OFF
ROCK ARENA	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	MED	10	—	—	ON	OFF
JAZZ CLUB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	MED	10	—	—	ON	OFF
CLASSIC CONCERT	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	MED	10	—	—	ON	OFF
MATRIX	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB	—	—	30m sec	—	ON	OFF

— : No setting

✻1 : Conditions in case for setting AC-3 data to ZR38500.

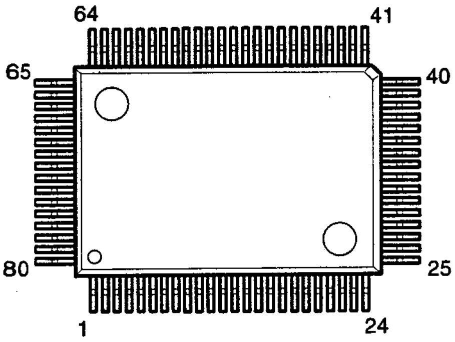
SEMICONDUCTORS

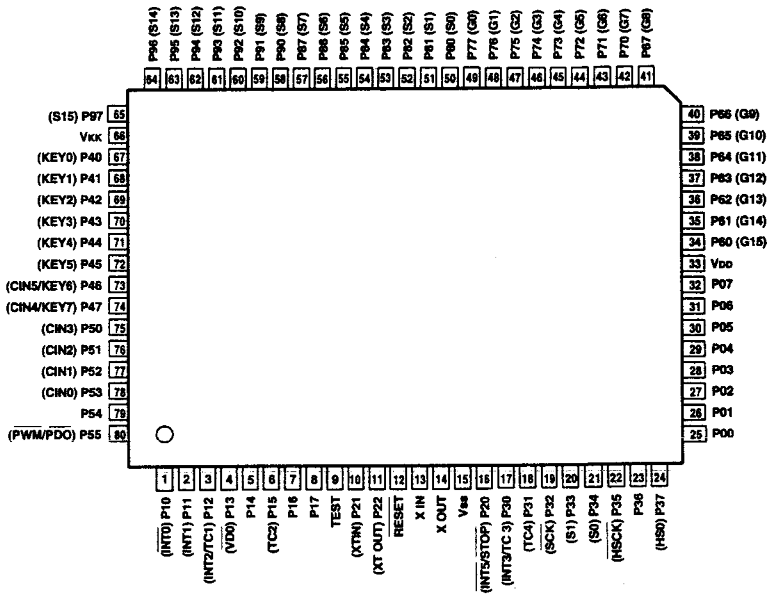
• IC's

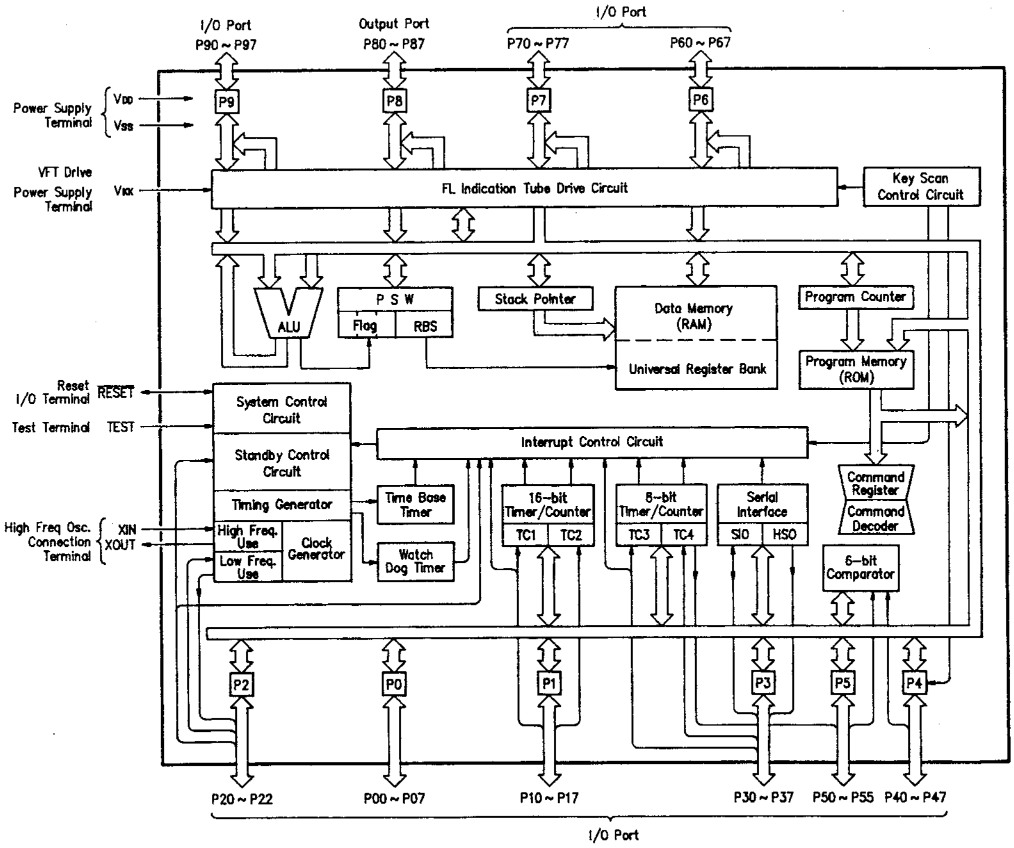
Note: Indications before IC numbers denote P.W.B. name.

AU	: Audio P.W.B. Unit
VI	: Video P.W.B. Unit
PO	: Power Supply P.W.B. Unit
DI	: Display P.W.B. Unit
DG	: Digital P.W.B. Unit
DS	: DSP P.W.B. Unit

TMP87CS71F-**** (VI: IC901)
TMP87CP71F **** (VI: IC902)


64
41
65
40
80
25
1
24


P96 (S14) 64
P95 (S13) 63
P94 (S12) 62
P93 (S11) 61
P92 (S10) 60
P91 (S9) 59
P90 (S8) 58
P87 (S7) 57
P86 (S6) 56
P85 (S5) 55
P84 (S4) 54
P83 (S3) 53
P82 (S2) 52
P81 (S1) 51
P80 (S0) 50
P77 (G0) 49
P76 (G1) 48
P75 (G2) 47
P74 (G3) 46
P73 (G4) 45
P72 (G5) 44
P71 (G6) 43
P70 (G7) 42
P67 (G8) 41
(S15) P97 65
Vkk 66
(KEY0) P40 67
(KEY1) P41 68
(KEY2) P42 69
(KEY3) P43 70
(KEY4) P44 71
(KEY5) P45 72
(CIN5/KEY6) P46 73
(CIN4/KEY7) P47 74
(CIN3) P50 75
(CIN2) P51 76
(CIN1) P52 77
(CIN0) P53 78
P54 79
(PWM/PDO) P55 80
40 P66 (G9)
39 P65 (G10)
38 P64 (G11)
37 P63 (G12)
36 P62 (G13)
35 P61 (G14)
34 P60 (G15)
33 VDD
32 P07
31 P06
30 P05
29 P04
28 P03
27 P02
26 P01
25 P00
1 (INT0) P10
2 (INT1) P11
3 (INT2/TC1) P12
4 (VD0) P13
5 P14
6 (TC2) P15
7 P16
8 P17
9 TEST
10 (XTIN) P21
11 (XT OUT) P22
12 RESET
13 X IN
14 X OUT
15 Vss
16 (INT5/STOP) P20
17 (INT3/TC 3) P30
18 (TC4) P31
19 (SCK) P32
20 (S1) P33
21 (S0) P34
22 (HSCK) P35
23 P36
24 (HS0) P37


I/O Port
P90 ~ P97
Output Port
P80 ~ P87
I/O Port
P70 ~ P77
P60 ~ P67
P9
P8
P7
P6
Power Supply Terminal
VDD
VSS
VFT Drive Power Supply Terminal
VKK
FL Indication Tube Drive Circuit
Key Scan Control Circuit
ALU
P S W
Flag
RBS
Stack Pointer
Data Memory (RAM)
Universal Register Bank
Program Counter
Program Memory (ROM)
Reset I/O Terminal
RESET
Test Terminal
TEST
System Control Circuit
Standby Control Circuit
Timing Generator
Interrupt Control Circuit
Time Base Timer
Watch Dog Timer
16-bit Timer/Counter
TC1
TC2
8-bit Timer/Counter
TC3
TC4
Serial Interface
SIO
HSO
Command Register
Command Decoder
6-bit Comparator
High Freq Osc. Connection Terminal
XIN
XOUT
High Freq. Use
Low Freq. Use
Clock Generator
P2
P0
P1
P3
P5
P4
P20 ~ P22
P00 ~ P07
P10 ~ P17
P30 ~ P37
P50 ~ P55
P40 ~ P47
I/O Port

TMP87CS71F-**** (IC901) Terminal Function

Pin No.	Port Name	Symbol	I/O	Type	Op	Det	Res	Ini	Function
1	P10/INT 0	NC	O	C	—	—	Z	L	No connection.
2	P11/INT 1	DSP CLK IN	I	—	Eu	S	Z	H	DSP control terminal (ZR38500).
3	P12/INT 2	SO/ZR	I	—	Eu	S	Z	—	DSP control input terminal (ZR38500).
4	P13/DVO	NC	O	C	—	—	Z	L	No connection.
5	P14	NC	O	C	—	—	Z	L	No connection.
6	P15/TC2	NC	O	C	—	—	Z	L	No connection.
7	P16	NC	O	C	—	—	Z	L	No connection.
8	P17	NC	O	C	—	—	Z	L	No connection.
9	TEST	TEST	I	—	GND	—	—	—	Connect to ground.
10	P21/XTIN	NC	O	N	—	—	Z	L	No connection.
11	P22/XTO	SCL	O	N	Eu	—	Z	H	MAIN-SUB microcomputer communication control terminal.
12	$\overline{\text{RESET}}$	$\overline{\text{RESET}}$	I	—	Eu	Lv	L	—	Reset input.
13	XIN		I	—	—	—	—	—	Oscillator circuit terminal (4MHz).
14	XOUT		O	—	—	—	—	—	Oscillator circuit terminal (4MHz).
15	VSS	GND	I	—	GND	—	—	—	Ground.
16	P20/INT 5	POWER OFF	I	—	Eu	Lv	Z	—	Power OFF detection signal (L: Power OFF).
17	P30/INT 3	REMOCON	I	—	Eu	E&L	Z	—	Remote control signal input.
18	P31/TC4	SDA	O	N	Eu	—	Z	H	MAIN-SUB microcomputer communication control terminal.
19	P32/SCK	NC	O	N	—	—	Z	L	No connection.
20	P33/SI	NC	O	N	—	—	Z	L	No connection.
21	P34/S0	NC	O	N	—	—	Z	L	No connection.
22	P35/HSCK	OSD CLK	O	N	Eu	S	Z	H	OSD control output (M35015).
23	P36	OSD CS	O	N	Eu	—	Z	H	OSD control output (M35015).
24	P37/HSO	OSD DATA	O	N	Eu	S	Z	L	OSD control output (M35015).
25	P00	OSD RES	O	C	—	—	Z	H	OSD control output (M35015).
26	P01	FL RES	O	C	—	—	Z	L	Fluorescent display control output (MSC1937).
27	P02	FL DATA	O	C	—	S	Z	H	Fluorescent display control output (MSC1937).
28	P03	FL CLK	O	C	—	S	Z	H	Fluorescent display control output (MSC1937).
29	P04	LED CK	O	C	—	S	Z	H	LED control terminal (M66313).
30	P05	LED DATA	O	C	—	S	Z	H	LED control terminal (M66313).
31	P06	LED LE	O	C	—	—	Z	H	LED control terminal (M66313).
32	P07	LED OE	O	C	—	—	Z	H	LED control terminal (M66313).
33	VDD	VDD	I	—	—	—	—	—	Connect to +5V power supply.
34	P60	VOL MUTE	O	P	Id	—	L	L	Control signal at minus infinite of electronic volume (H: Infinite).
35	P61	E. VOL CE3	O	P	Id	—	L	L	Electronic volume control output (LC7536).
36	P62	E. VOL CE2	O	P	Id	—	L	L	Electronic volume control output (LC7536).
37	P63	E. VOL CE1	O	P	Id	—	L	L	Electronic volume control output (LC7536).
38	P64	E. VOL DATA	O	P	Id	—	L	H	Electronic volume control output (LC7536).
39	P65	E. VOL CK	O	P	Id	—	L	H	Electronic volume control output (LC7536).
40	P66	IN VOL ST	O	P	Id	—	L	L	Electronic volume control output (TC9299).
41	P67	A/D RES	O	P	Id	—	L	L	A/D control terminal (L: Analog input at reset).
42	P70	SEL	O	P	Id	—	L	H	DIR cotrol terminal (CS8412).
43	P71	SELCK	O	P	Id	—	L	H	DIR cotrol terminal (CS8412) (H: Digital, L: Analog).
44	P72	DSF1	O	P	Id	—	L	H	Digital filter control terminal.
45	P73	DSF2	O	P	Id	—	L	L	Digital filter control terminal.
46	P74	AC-3	O	P	Id	—	L	H	Digital MUTE control terminal (L: AC-3).
47	P75	M SYNC (NC)	I	—	—	—	L	—	No connection.
48	P76	M STOP OUT	O	P	Id	—	L	H	No connection.
49	P77	NC	O	P	Id	—	L	L	No connection.
50	P80	STANDBY LED	O	P	Id	—	L	H	Standby indication LED drive output (H: Lighting).
51	P81	FRONT	O	P	Id	—	L	H	Front Pre-out relay control output (L: Mute).
52	P82	CENTER	O	P	Id	—	L	L	Center Pre-out relay control output (L: Mute).
53	P83	REAR	O	P	Id	—	L	L	Rear Pre-out relay control output (L: Mute).
54	P84	MULTI	O	P	Id	—	L	H	MULTI Pre-out relay control output (L: Mute).
55	P85	SUBWOOFER	O	P	Id	—	L	H	MONO Pre-out relay control output (L: Mute).
56	P86	H/P	O	P	Id	—	L	H	H/P Pre-out relay control output (L: Mute).
57	P87	POWER	O	P	Id	—	L	H	Power supply relay control output (H: ON).
58	P90	OVL	I	—	—	—	L	—	Over load detection input (H: Over load).
59	P91	NC	I	—	Id	—	L	L	No connection.
60	P92	F0	I	—	—	—	L	—	DIR control input terminal (CS8412).
61	P93	F1	I	—	—	—	L	—	DIR control input terminal (CS8412).
62	P94	F2	I	—	—	—	L	—	DIR control input terminal (CS8412).
63	P95	CSI	I	—	—	—	L	—	DIR control input terminal (CS8412) (H: PCM).
64	P96	ERR	I	—	—	—	L	—	DIR control input terminal (CS8412) (H:ERR).
65	P97	VERF (NC)	I	—	—	—	L	—	No connection.
66	VKK	VKK	I	—	—	—	—	—	Connect to ground.
67	P40/KEY0	S-MONITOR DET.	I	—	Eu	Lv	Z	—	Judgement whether S monitor is connected or not (L: Connecting).
68	P41/KEY1	S-SIGNAL DET.	I	—	Eu	Lv	Z	—	S signal input control (H: S signal input).
69	P42/KEY2	OSD SYNC DET.	I	—	Eu	Lv	Z	—	OSD sync switching signal (H: External sync).
70	P43/KEY3	MVOL SELA	I	—	Eu	Lv	Z	H	Master volume setting input (Rotary encode).
71	P44/KEY4	MVOL SELB	I	—	Eu	Lv	Z	H	Master volume setting input (Rotary encode).
72	P45/KEY5	H/P DET	I	—	Eu	Lv	Z	L	H/P input detection signal (H: Detecting).
73	P46/CIN5	NC	O	N	—	—	Z	L	No connection.
74	P47/CIN4	MODE	I	—	Eu	Lv	Z	—	Destination mode switching input.
75	P50/CIN3	KEY4	I	—	Eu	Lv	Z	H	Key input 4.
76	P51/CIN2	KEY3	I	—	Eu	Lv	Z	H	Key input 3.
77	P52/CIN1	KEY2	I	—	Eu	Lv	Z	H	Key input 2.
78	P53/CIN0	KEY1	I	—	Eu	Lv	Z	H	Key input 1.
79	P54	FUNC SELA	I	—	Eu	Lv	Z	L	Function switching input (Rotary encoder).
80	P55/PMW	FUNC SELB	I	—	Eu	Lv	Z	H	Function switching input (Rotary encoder).

NOTES:

Pin No. : Terminal number of microcomputer.
Port Name : The name entered in the data sheet of microcomputer.
Symbol : Symbolized interface function.
I/O : Input or output of part.
  "I" = Input port
  "O" = Output port
Type : Composition of port in case of output port.
  "C" = CMOS output
  "N" = NMOS open drain output
  "P" = PMOS open drain output.
Op : Pull up/Pull down selection information.
  "Iu" = Inner microcomputer pull up
  "Id" = Inner microcomputer pull down
  "Eu"= External microcomputer pull up
  "Ed"= External microcomputer pull down
Det : Indicates judging state of input port. Level detection is "LV"; Edge detection is "Ed"; Detection by both shifting is "E&L"; Serial data detection is "S" (Serial data output is also "S").
Res : State at reset.
  "H" = Outputs High Level at reset
  "L" = Outputs Low Level at reset
  "Z" = Becomes High Impedance mode at reset.
Ini : Initial output state.
Function : Function and logical level explanation of signals to be interface.

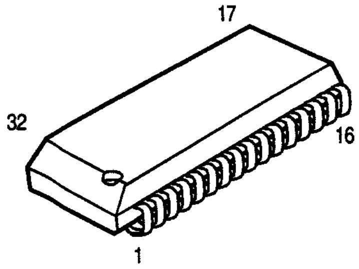
TMP87CP71F-**** (IC902) Terminal Function

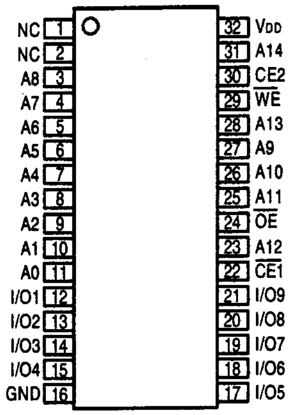
Pin No.	Port Name	Symbol	I/O	Type	Op	Det	Res	Ini	Function
1	P10/INT 0	DEMOD RES	O	C	—	—	Z	H	Demodulator reset control terminal (L: Reset).
2	P11/INT 1	DEMOD POWER	O	C	—	—	Z	L	Demodulator power ON/OFF control terminal (H: ON).
3	P12/INT 2	A/D POWER	O	C	—	—	Z	H	A/D converter power ON/OFF control terminal (H: ON).
4	P13/DVO	LCR GAIN	O	C	—	—	Z	L	D/A output gain control terminal.
5	P14		I	—	—	—	Z	L	No connection.
6	P15/TC2		I	—	—	—	Z	L	No connection.
7	P16	TONE	O	C	—	—	Z	L	Tone control terminal (H: Direct).
8	P17	CD DIRECT	O	C	—	—	Z	H	CD direct control terminal (H: Function CD ON, Direct ON).
9	TEST		I	—	GND	—	—	—	Connect to ground.
10	P21/XTIN	M STOP IN	I	—	—	—	Z	H	No connection.
11	P22/XTO	NC	I	—	—	—	Z	L	No connection.
12	RESET		I	—	Eu	Lv	L	—	Reset input.
13	XIN		I	—	—	—	—	—	Oscillator circuit terminal (4MHz).
14	XOUT		O	—	—	—	—	—	Oscillator circuit terminal (4MHz).
15	VSS		I	—	GND	—	—	—	Ground.
16	P20/INT 5	POWER OFF	I	—	Eu	Lv	Z	—	Power OFF detection signal (L: Power OFF).
17	P30/INT 3	DSP CLK IN	I	—	Eu	S	Z	L	Not used (DSP control terminal (DSP56004)).
18	P31/TC4	SO/MOT	I	—	Eu	S	Z	L	Not used (DSP control terminal (DSP56004)).
19	P32/SCK	SCL	I	—	Eu	S	Z	—	MAIN-SUB microcomputer communication control terminal.
20	P33/SI	SDA	I	—	Eu	S	Z	—	MAIN-SUB microcomputer communication control terminal.
21	P34/S0	NC	I	—	—	—	Z	L	No connection.
22	P35/HSCK	DSP CK	O	N	Eu	S	Z	H	DSP control input terminal (DSP56004).
23	P36	Z SS	O	N	Eu	—	Z	H	DSP control terminal (ZR38500).
24	P37/HSO	DSP DATA	O	N	Eu	S	Z	H	DSP control terminal (ZR38500, DSP56004).
25	P00	M SS	O	C	—	—	Z	H	DSP control terminal (DSP56004).
26	P01	DSP RES (Z)	O	C	—	—	Z	H	DSP control terminal (ZR38500), (L: Reset).
27	P02	DSP RES (M)	O	C	—	—	Z	H	DSP control terminal (DSP56004), (L: Reset).
28	P03	FUNC ST3	O	C	—	—	Z	L	Function control output (NJU7313AL).
29	P04	FUNC ST2	O	C	—	—	Z	L	Function control output (TC9274N) REC OUT.
30	P05	FUNC ST1	O	C	—	—	Z	L	Function control output (TC9274N) INPUT.
31	P06	FUNC DATA	O	C	—	S	Z	L	Function control output (TC9274N, NJU7313AL).
32	P07	FUNC CK	O	C	—	S	Z	L	Function control output (TC9274N, NJU7313AL).
33	VDD		I	—	—	—	—	—	Connect to +5V power supply.
34	P60	VIN A	O	P	Id	—	L	L	Video input control (TC4051).
35	P61	VIN B	O	P	Id	—	L	L	Video input control (TC4051).
36	P62	VIN C	O	P	Id	—	L	L	Video input control (TC4051).
37	P63	VREC A	O	P	Id	—	L	L	Video output control (TC4051).
38	P64	VREC B	O	P	Id	—	L	L	Video output control (TC4051).
39	P65	VREC C	O	P	Id	—	L	L	Video output control (TC4051).
40	P66	VINH1	O	P	Id	—	L	L	Video output inhibit control (HD14066).
41	P67	VINH2	O	P	Id	—	L	L	Video output inhibit control (HD14066).
42	P70	VINH3	O	P	Id	—	L	L	Video output inhibit control (HD14066).
43	P71	$\overline{S1}$	O	P	Id	—	L	—	Video signal switching control output.
44	P72	S1	O	P	Id	—	L	—	Video signal switching control output.
45	P73	S2	O	P	Id	—	L	—	Video signal switching control output.
46	P74	NC	I	—	Id	—	L	L	No connection.
47	P75	G2	O	P	Id	—	L	—	LED display digit control signal.
48	P76	G1	O	P	Id	—	L	—	LED display digit control signal.
49	P77	G0	O	P	Id	—	L	—	LED display digit control signal.
50	P80	S (a)	O	P	Id	—	L	—	LED display segment control signal.
51	P81	S (b)	O	P	Id	—	L	—	LED display segment control signal.
52	P82	S (c)	O	P	Id	—	L	—	LED display segment control signal.
53	P83	S (d)	O	P	Id	—	L	—	LED display segment control signal.
54	P84	S (e)	O	P	Id	—	L	—	LED display segment control signal.
55	P85	S (f)	O	P	Id	—	L	—	LED display segment control signal.
56	P86	S (g)	O	P	Id	—	L	—	LED display segment control signal.
57	P87	S (h)	O	P	Id	—	L	—	LED display segment control signal.
58	P90	NC	I	—	Id	—	L	L	No connection.
59	P91	DSP POWER	O	P	Id	—	L	H	DSP power supply control output (H: ON).
60	P92	IN A	O	P	Id	—	L	L	Digital input/output control terminal (TC74HC151).
61	P93	IN B	O	P	Id	—	L	L	Digital input/output control terminal (TC74HC151).
62	P94	IN C	O	P	Id	—	L	L	Digital input/output control terminal (TC74HC151).
63	P95	REC A	O	P	Id	—	L	L	Digital input/output control terminal (TC74HC151).
64	P96	REC B	O	P	Id	—	L	L	Digital input/output control terminal (TC74HC151).
65	P97	REC C	O	P	Id	—	L	L	Digital input/output control terminal (TC74HC151).
66	VKK		I	—	—	—	—	—	Connect to ground.
67	P40/KEY0	NC	I	—	—	—	Z	L	No connection.
68	P41/KEY1	NC	I	—	—	—	Z	L	No connection.
69	P42/KEY2	NC	I	—	—	—	Z	L	No connection.
70	P43/KEY3	NC	I	—	—	—	Z	L	No connection.
71	P44/KEY4	NC	I	—	—	—	Z	L	No connection.
72	P45/KEY5	NC	I	—	—	—	Z	L	No connection.
73	P46/CIN5	NC	I	—	—	—	Z	L	No connection.
74	P47/CIN4	NC	I	—	—	—	Z	L	No connection.
75	P50/CIN3	NC	I	—	—	—	Z	L	No connection.
76	P51/CIN2	NC	I	—	—	—	Z	L	No connection.
77	P52/CIN1	NC	I	—	—	—	Z	L	No connection.
78	P53/CIN0	NC	I	—	—	—	Z	L	No connection.
79	P54	NC	I	—	—	—	Z	L	No connection.
80	P55/PMW	NC	I	—	—	—	Z	L	No connection.

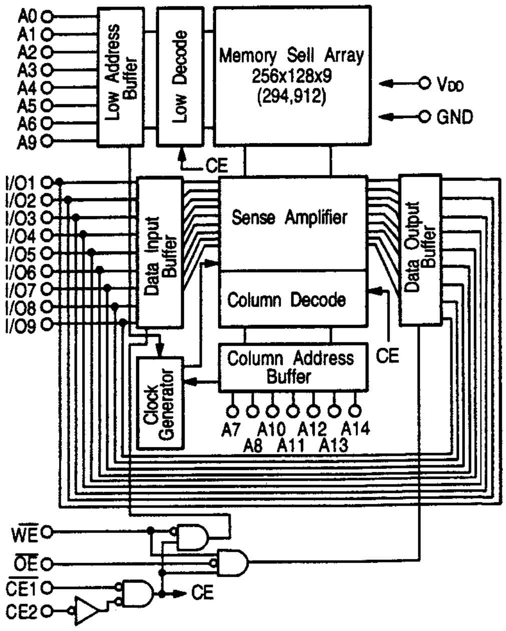
NOTES:

Pin No. : Terminal number of microcomputer.
Port Name : The name entered in the data sheet of microcomputer.
Symbol : Symbolized interface function.
I/O : Input or output of part.
"I" = Input port
"O" = Output port
Type : Composition of port in case of output port.
"C" = CMOS output
"N" = NMOS open drain output
"P" = PMOS open drain output.
Op : Pull up/Pull down selection information.
"Iu" = Inner microcomputer pull up
"Id" = Inner microcomputer pull down
"Eu"= External microcomputer pull up
"Ed"= External microcomputer pull down
Det : Indicates judging state of input port. Level detection is "LV"; Edge detection is "Ed"; Detection by both shifting is "E&L"; Serial data detection is "S" (Serial data output is also "S").
Res : State at reset.
"H" = Outputs High Level at reset
"L" = Outputs Low Level at reset
"Z" = Becomes High Impedance mode at reset.
Ini : Initial output state.
Function : Function and logical level explanation of signals to be interface.

TC55329AJ-35
(DS: IC028, 034, 035)



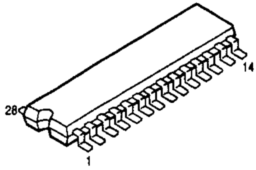

NC 1
NC 2
A8 3
A7 4
A6 5
A5 6
A4 7
A3 8
A2 9
A1 10
A0 11
I/O1 12
I/O2 13
I/O3 14
I/O4 15
GND 16
32 VDD
31 A14
30 CE2
29 $\overline{\text{WE}}$
28 A13
27 A9
26 A10
25 A11
24 $\overline{\text{OE}}$
23 A12
22 $\overline{\text{CE1}}$
21 I/O9
20 I/O8
19 I/O7
18 I/O6
17 I/O5

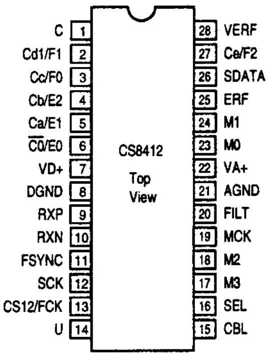

A0
A1
A2
A3
A4
A5
A6
A9
Low Address Buffer
Low Decode
Memory Sell Array
256x128x9
(294,912)
VDD
GND
CE
I/O1
I/O2
I/O3
I/O4
I/O5
I/O6
I/O7
I/O8
I/O9
Data Input Buffer
Sense Amplifier
Column Decode
Data Output Buffer
Column Address Buffer
CE
Clock Generator
A7 A10 A12 A14
A8 A11 A13
$\overline{\text{WE}}$
$\overline{\text{OE}}$
$\overline{\text{CE1}}$
CE2
CE

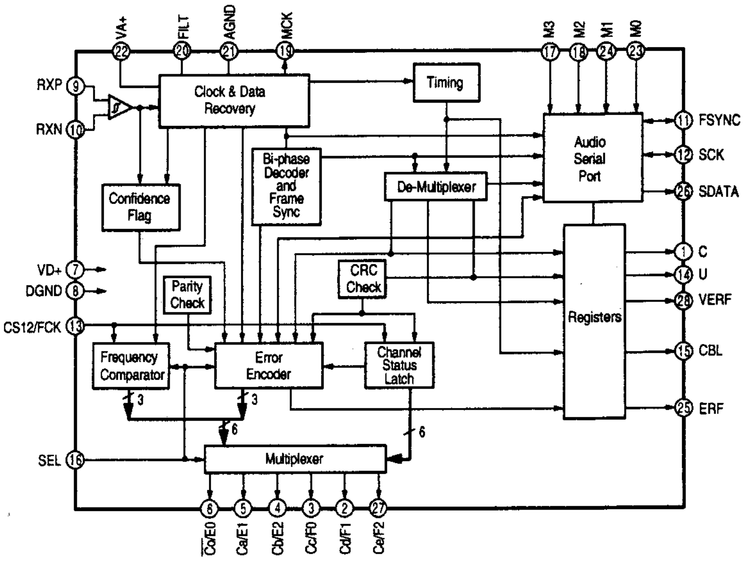
TC55329 AJ-35 Terminal Function

Pin No.	Symbol	I/O	Function
1	N.C.	—	No connection.
2	N.C.	—	No connection.
3	A8	I	Address 8 input.
4	A7	I	Address 7 input.
5	A6	I	Address 6 input.
6	A5	I	Address 5 input.
7	A4	I	Address 4 input.
8	A3	I	Address 3 input.
9	A2	I	Address 2 input.
10	A1	I	Address 1 input.
11	A0	I	Address 0 input.
12	I/O1	I/O	Data input/output.
13	I/O2	I/O	Data input/output.
14	I/O3	I/O	Data input/output.
15	I/O4	I/O	Data input/output.
16	GND	—	Ground.
17	I/O5	I/O	Data input/output.
18	I/O6	I/O	Data input/output.
19	I/O7	I/O	Data input/output.
20	I/O8	I/O	Data input/output.
21	I/O9	I/O	Data input/output.
22	$\overline{\text{CE1}}$	I	Chip enable input.
23	A12	I	Address 12 input.
24	$\overline{\text{OE}}$	I	Output buffer control input signal.
25	A11	I	Address 11 input.
26	A10	I	Address 10 input.
27	A9	I	Address 9 input.
28	A13	I	Address 13 input.
29	$\overline{\text{WE}}$	I	Write enable input.
30	CE2	I	Chip enable input.
31	A14	I	Address 14 input.
32	VDD	—	+5V power supply.

CS8412CS
(DS: IC031)



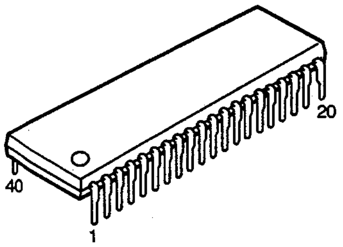

C 1
Cd1/F1 2
Cc/F0 3
Cb/E2 4
Ca/E1 5
C0/E0 6
VD+ 7
DGND 8
RXP 9
RXN 10
FSYNC 11
SCK 12
CS12/FCK 13
U 14
28 VERF
27 Ce/F2
26 SDATA
25 ERF
24 M1
23 M0
22 VA+
21 AGND
20 FILT
19 MCK
18 M2
17 M3
16 SEL
15 CBL
CS8412
Top
View

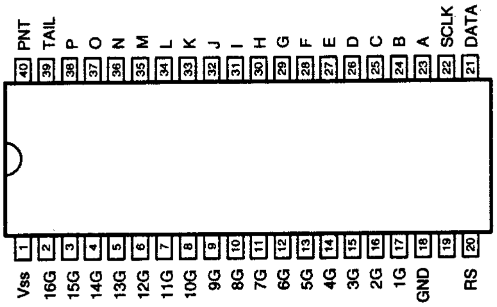

VA+ 22
FILT 20
AGND 21
MCK 19
M3 17
M2 18
M1 24
M0 23
RXP 9
RXN 10
Clock & Data Recovery
Timing
Audio Serial Port
11 FSYNC
12 SCK
26 SDATA
Bi-phase Decoder and Frame Sync
De-Multiplexer
Confidence Flag
CRC Check
1 C
14 U
28 VERF
VD+ 7
DGND 8
Parity Check
CS12/FCK 13
Registers
Frequency Comparator
Error Encoder
Channel Status Latch
15 CBL
25 ERF
3
3
6
6
SEL 16
Multiplexer
6 C0/E0
5 Ca/E1
4 Cb/E2
3 Cc/F0
2 Cd/F1
27 Ce/F2

CS8412CS Terminal Function

Pin No.	Symbol	I/O	Function
1	C	I	C.S. bit input.
2	Cd F1	O	C.S. bit output/Frequency indication (H: C.S. bit output, L: Frequency indication). CO="0" in C.S. bit is for professional use, and CO="1" is for general use.
3	Cc F0		
4	Cb E2	O	C.S. bit output/Error indication (H: C.S. bit output, L: Error indication). CO="0" in C.S. bit is for professional use, and CO="1" is for general use.
5	Ca E1		
6	C0/E0		
7	VD+	—	Digital +5V power supply.
8	DGND	—	Connect to digital ground.
9	RXN	I	Differential line receiver signal. Compatible with RS422.
10	RXP		
11	FSYNC	I/O	Frame sync signal.
12	SCK	I/O	Serial clock signal, 32 clock is included with each audio sample in output status.
13	CS12/FCK	I	Channel selection/Reference frequency (H: Channel selection, L: Reference frequency). CS12 selects the channel output to C.S terminal. "0" is for sub frame 1, and "1" is for sub frame 2. Input frequency can be detected by 6.144MHz clock input to FCK.
14	U	I	User (U) bit terminal.
15	CBL	O	C.S. block output terminal.
16	SEL	I	C.S. F2-F0, E2-E0 selection signal (H: C.S. bit output, L: Frequency/Error indication).
17	M3	I	Serial port mode select signal.
18	M2		
19	MCK	I	Master clock signal (Low jitter clock output with 256 times of receiving frequency).
20	FILT	I	Filter terminal, connect resistor 1kohm and capacitor 0.047 µF between this terminal and AGND.
21	AGND	—	Connect to analog ground.
22	VA+	—	Analog +5V power supply (Noise for this power supply should be minimized as lower as possible since it affects jitter's performance of playback clock directly).
23	M0	I	Serial port mode select signal.
24	M1		
25	ERF	O	Error flag aignal.
26	SDATA	O	Serial data signal.
27	Ce F2	O	C.S. bit output/Frequency indication (H: C.S. bit output, L: Frequency indication). CO="0" in C.S. bit is for professional use, and CO="1" is for general use.
28	VERF	O	Parity and Error flag signal.

MSC1937-03RS
(DI : IC102)

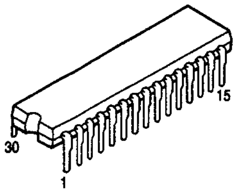


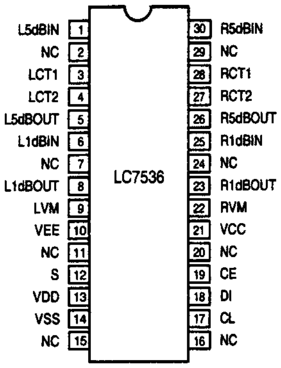

PNT
TAIL
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
SCLK
DATA
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Vss
16G
15G
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
GND
RS

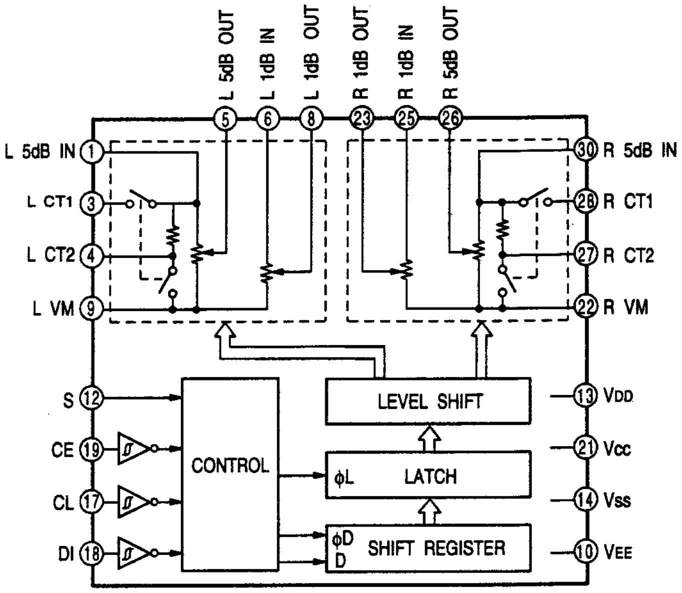
MSC1937-03RS Terminal Function

Pin No.	Symbol	I/O	Function
1	Vss	—	Power supply (+5V).
2	16G	O	Digit 16 output.
3	15G	O	Digit 15 output.
4	14G	O	Digit 14 output.
5	13G	O	Digit 13 output.
6	12G	O	Digit 12 output.
7	11G	O	Digit 11 output.
8	10G	O	Digit 10 output.
9	9G	O	Digit 9 output.
10	8G	O	Digit 8 output.
11	7G	O	Digit 7 output.
12	6G	O	Digit 6 output.
13	5G	O	Digit 5 output.
14	4G	O	Digit 4 output.
15	3G	O	Digit 3 output.
16	2G	O	Digit 2 output.
17	1G	O	Digit 1 output.
18	GND	—	Ground.
19	NC	—	No connection.
20	RS	I	POWER-ON-RESET. (H : RESET)
21	DATA	I	Data input.
22	SCLK	I	Shift clock input.
23	A	O	Segment A output.
24	B	O	Segment B output.
25	C	O	Segment C output.
26	D	O	Segment D output.
27	E	O	Segment E output.
28	F	O	Segment F output.
29	G	O	Segment G output.
30	H	O	Segment H output.
31	I	O	Segment I output.
32	J	O	Segment J output.
33	K	O	Segment K output.
34	L	O	Segment L output.
35	M	O	Segment M output.
36	N	O	Segment N output.
37	O	O	Segment O output.
38	P	O	Segment P output.
39	TAIL	—	No connection.
40	PNT	O	Point output.

LC7536
(AU: IC415, 416, 431, 432)
(PO: IC424)



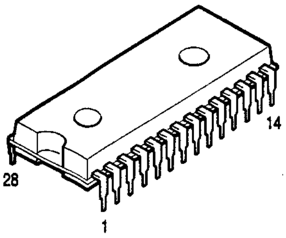

L5dBIN 1
NC 2
LCT1 3
LCT2 4
L5dBOUT 5
L1dBIN 6
NC 7
L1dBOUT 8
LVM 9
VEE 10
NC 11
S 12
VDD 13
VSS 14
NC 15
LC7536
30 R5dBIN
29 NC
28 RCT1
27 RCT2
26 R5dBOUT
25 R1dBIN
24 NC
23 R1dBOUT
22 RVM
21 VCC
20 NC
19 CE
18 DI
17 CL
16 NC

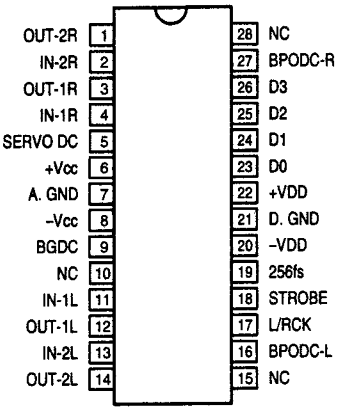

L 5dB OUT
L 1dB IN
L 1dB OUT
R 1dB OUT
R 1dB IN
R 5dB OUT
5
6
8
23
25
26
L 5dB IN 1
L CT1 3
L CT2 4
L VM 9
30 R 5dB IN
28 R CT1
27 R CT2
22 R VM
S 12
CE 19
CL 17
DI 18
CONTROL
LEVEL SHIFT
ϕL LATCH
ϕD D SHIFT REGISTER
13 VDD
21 Vcc
14 Vss
10 VEE

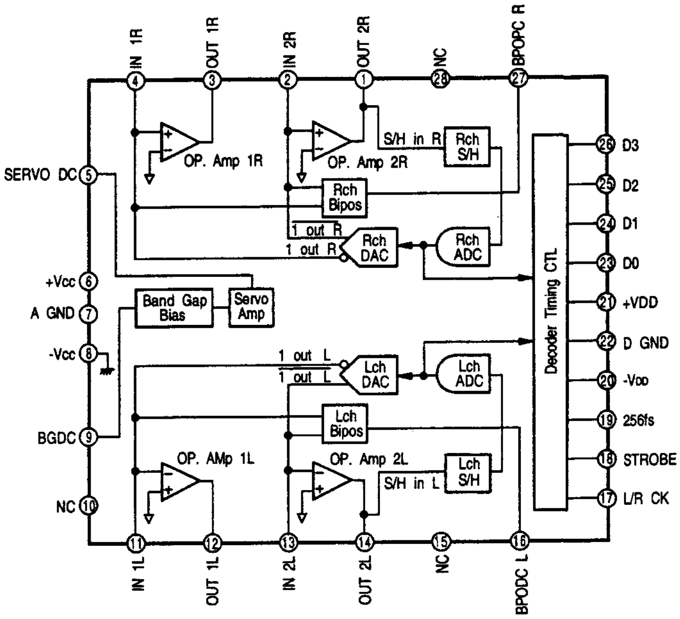
LC7536 Terminal Function

Pin No.	Symbol	I/O	Function
1	L 5dBIN	I	Input terminal for 5dB step attenuator, it should be driven with low impedance path.
2	NC	—	No connection.
3	L CT1	I	For loudness control, connect a capacitor between CT1 and 5dBIN with high frequency compensation, and also connect a capacitor between CT2 and Vm with low frequency compensation.
4	L CT2		
5	L 5dBOUT	O	Output terminal for 5dB step attenuator with approx. 1Mohm load impedance.
6	L 1dBIN	I	Input terminal for 1dB step attenuator, it should be driven with low impedance.
7	NC	—	No connection.
8	L 1dBOUT	O	Output terminal for 1dB step attenuator with approx. 47kohm~1Mohm load impedance.
9	L VM		Common terminal for volume control.
10	VEE	I	Connect to power supply.
11	NC	—	No connection.
12	S		Selection terminal for address code during data format.
13	VDD	I	Connect to power supply (Pay attention to the rising time so that Vcc does not rise up faster than VDD when the power turns).
14	Vss	I	Connect to power supply.
15	NC	—	No connection.
16	NC	—	No connection.
17	CL	I	Input terminal for controlling LC7536 serial data with 0~5V amplitude.
18	DI		
19	CE		
20	NC	—	No connection.
21	Vcc	I	Connect to power supply (Pay attention to the rising time so that Vcc does not rise up faster than VDD when the power turns).
22	R VM		Common terminal for volume control.
23	R 1dBOUT	O	Output terminal for 1dB step attenuator with approx. 47kohm~1Mohm load impedance.
24	NC	—	No connection.
25	R 1dBIN	I	Input terminal for 1dB step attenuator, it should be driven with low impedance.
26	R 5dBOUT	O	Output terminal for 5dB step attenuator with approx. 1Mohm load impedance.
27	R CT2		For loudness control, connect a capacitor between CT1 and 5dBIN with high frequency compensation, and also connect a capacitor between CT2 and Vm with low frequency compensation.
28	R CT1		
29	NC	—	No connection.
30	R 5dBIN	I	Input terminal for 5dB step attenuator, it should be driven with low impedance path.

PCM1760P-L
(DG: IC171)



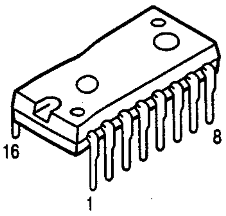

OUT-2R 1
IN-2R 2
OUT-1R 3
IN-1R 4
SERVO DC 5
+Vcc 6
A. GND 7
-Vcc 8
BGDC 9
NC 10
IN-1L 11
OUT-1L 12
IN-2L 13
OUT-2L 14
28 NC
27 BPODC-R
26 D3
25 D2
24 D1
23 D0
22 +VDD
21 D. GND
20 -VDD
19 256fs
18 STROBE
17 L/RCK
16 BPODC-L
15 NC

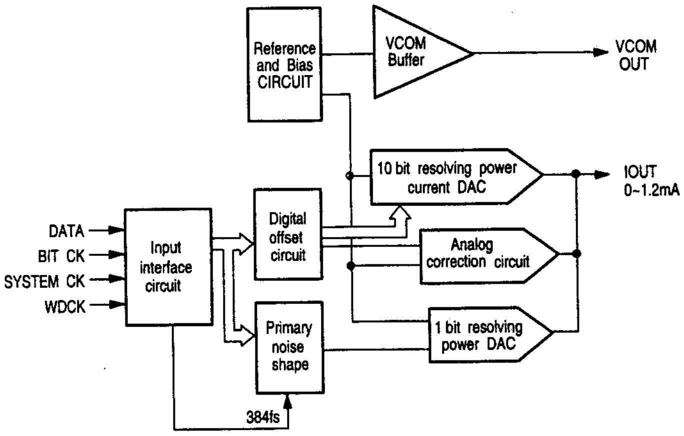

IN 1R
OUT 1R
IN 2R
OUT 2R
NC
BPOPC R
SERVO DC
+Vcc
A GND
-Vcc
BGDC
NC
OP. Amp 1R
OP. Amp 2R
S/H in R
Rch S/H
Rch Bipos
1 out R
1 out R
Rch DAC
Rch ADC
Band Gap Bias
Servo Amp
1 out L
1 out L
Lch DAC
Lch ADC
Lch Bipos
OP. AMp 1L
OP. Amp 2L
S/H in L
Lch S/H
Decoder Timing CTL
D3
D2
D1
D0
+VDD
D GND
-VDD
256fs
STROBE
L/R CK
IN 1L
OUT 1L
IN 2L
OUT 2L
NC
BPODC L

PCM1760P-L Terminal Function

Pin No.	I/O	Symbol	Function	Pin No.	I/O	Symbol	Function
1	O	OUT-2R	Rch Amp.-2R output.	15		NC	No connection.
2	I	IN-2R	Rch Amp.-2R input.	16	—	BPODC-L	Lch bipolar offset decoupling terminal.
3	O	OUT-1R	Rch Amp.-1R output.	17	O	L/R CK	L/R clock output (64fs).
4	I	IN-1R	Rch Amp.-1R input.	18	O	STROBE	Data strobe output (128fs).
5	—	SERVO DC	Servo decoupling terminal.	19	I	256fs	System clock input (256fs).
6	—	+Vcc	Analog +5V power supply.	20	—	–VDD	Digital –5V power supply.
7	—	A. GND	Analog ground.	21	—	D. GND	Digital ground.
8	—	–Vcc	Analog –5V power supply.	22	—	+VDD	Digital +5V power supply.
9	—	BGDC	Band gap decoupling terminal.	23	O	D0	Data output (LSB side).
10	—	NC	No connection.	24	O	D1	Data output.
11	I	IN-1L	Lch Amp-1L input.	25	O	D2	Data output.
12	O	OUT-1L	Lch Amp-1L output.	26	O	D3	Data output (MSB side).
13	I	IN-2L	Lch Amp-2L input.	27	—	BPODC-R	Rch bipolar offset decoupling terminal.
14	O	OUT-2L	Lch Amp-2L output.	28	—	NC	No connection.

PCM69AP
(DG:IC214)

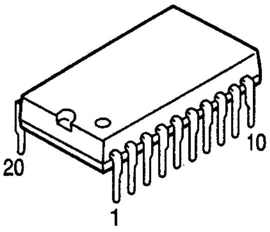


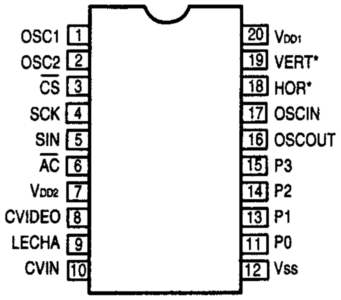

Reference and Bias CIRCUIT
VCOM Buffer
VCOM OUT
10 bit resolving power current DAC
IOUT 0~1.2mA
DATA
BIT CK
SYSTEM CK
WDCK
Input interface circuit
Digital offset circuit
Analog correction circuit
Primary noise shape
1 bit resolving power DAC
384fs

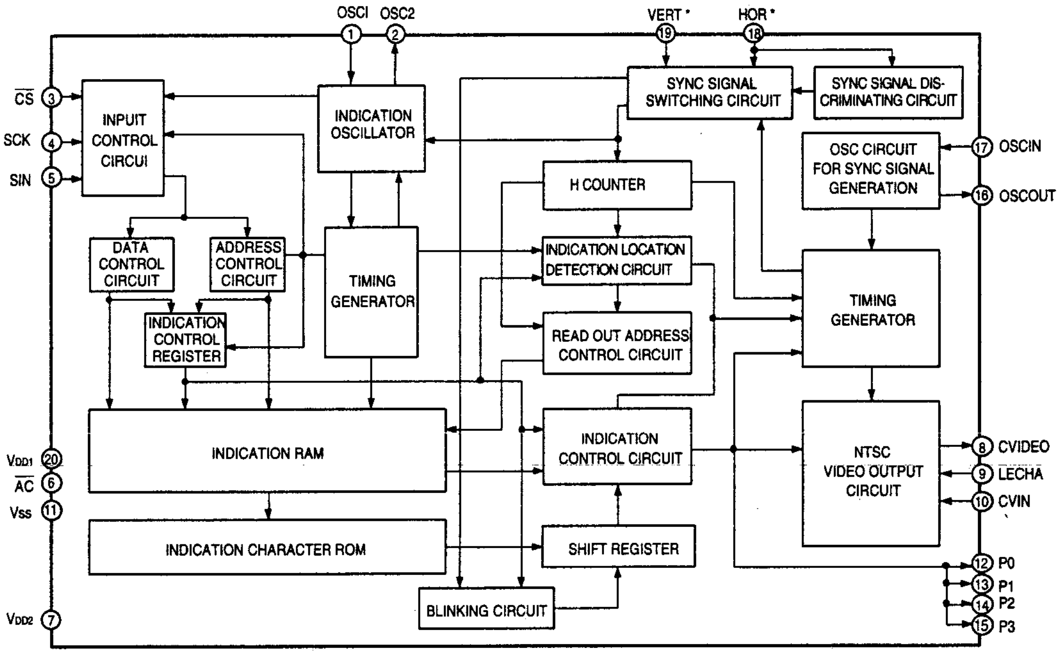
PCM69AP Terminal Function

Pin No.	Function
1	+Vcc(Analog power supply)
2	Vcom. Lch
3	Lout. Lch
4	Servo. DC
5	REF. DC
6	Lout. Rch
7	Vcom. Rch
8	A-GND (Analog common)
9	D-GND (Digital common)
10	DATA Rch
11	BCK
12	SYS CLK
13	WDCK
14	DATA Lch
15	TP1
16	+VDD(Digital power supply)

M35015-XXXSP (VI: IC814)




OSC1 1
OSC2 2
CS 3
SCK 4
SIN 5
AC 6
VDD2 7
CVIDEO 8
LECHA 9
CVIN 10
20 VDD1
19 VERT*
18 HOR*
17 OSCIN
16 OSCOUT
15 P3
14 P2
13 P1
11 P0
12 Vss

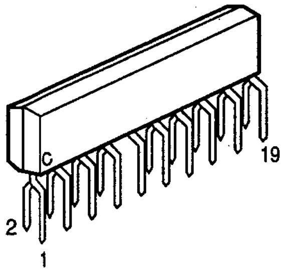

OSCI
OSC2
VERT*
HOR*
CS 3
SCK 4
SIN 5
INPUIT CONTROL CIRCUI
INDICATION OSCILLATOR
SYNC SIGNAL SWITCHING CIRCUIT
SYNC SIGNAL DIS-CRIMINATING CIRCUIT
OSC CIRCUIT FOR SYNC SIGNAL GENERATION
17 OSCIN
16 OSCOUT
H COUNTER
DATA CONTROL CIRCUIT
ADDRESS CONTROL CIRCUIT
TIMING GENERATOR
INDICATION LOCATION DETECTION CIRCUIT
INDICATION CONTROL REGISTER
READ OUT ADDRESS CONTROL CIRCUIT
TIMING GENERATOR
INDICATION RAM
INDICATION CONTROL CIRCUIT
NTSC VIDEO OUTPUT CIRCUIT
VDD1 20
AC 6
Vss 11
8 CVIDEO
9 LECHA
10 CVIN
INDICATION CHARACTER ROM
SHIFT REGISTER
12 P0
13 P1
14 P2
15 P3
BLINKING CIRCUIT
VDD2 7

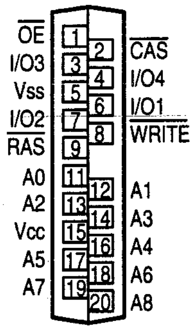
M35015-XXXSP Terminal Function

Pin No.	Symbol	Name	I/O	Function
1	OSC1	Osc. circuit ext. terminal.	I	External terminal for indication oscillator circuit. Standard OSC. freq. is approx. 7MHz. With this OSC. freq., decides horizontal indication locatin and character width.
2	OSC2		O	
3	$\overline{CS}$	Chip select input	I	Chip select terminal and turns to "L" when transfer serial data. Hysteresis input. Pull up resistor is built-in.
4	SCK	Serial clock input	I	Takes in serial data of SIN at SCK rise when $\overline{CS}$ terminal is in "L". Hysteresis input. Pull up rersist is built-in.
5	SIN	Serial data Input	I	Serial input of register for indication control and data, and address for indication data memoly. hysteresis input. Pull up resistor is built-in.
6	$\overline{AC}$	Auto-clear input	I	Resets internal circuit of IC at "L" mode. Hysteresi input,Pull up resistor is built-in.
7	V_{DD2}	Power supply	—	Power supply terminal of analog system. Connect to +5V.
8	CVIDEO	Combined video output	O	Output terminal of combined video signal. Outputs 2Vp-p combined video signal. Character output, etc. Overlap CVIN signal and outputs at superimpose.
9	LECHA	Character level input	I	Input terminal deciding character output level in combined video signal. color of character is white.
10	CVIN	Combined video input	I	Input terminal of external combined video signal. Character output etc. overlap this external combined video signal.
11	Vss	Ground	—	Ground terminal. Connect to GND.
12	P0	Output port P0	O	General output or character background signal BL NK1* output is switchable. Polarity can be selected at ROM mask.
13	P1	Output port P1	O	General output or character background signal CO1* output is switchable. Polarity can be selected at ROM mask.
14	P2	Output port P2	O	General output or character background signal BLNK2* output is switchable. Polarity can be selected at ROM mask.

Pin No.	Symbol	Name	I/O	Function
15	P3	Output port P3	O	General output or character background signal CO2* output is switchable. Polarity can be selected at ROM mask.
16	OSCOUT	Ext. terminal for sync sig. OSC. Circuit	O	Terminal for external use of sync signal OSC. circuit. Use the freq.: 14.32MHz at NTSC system, 17.73MHz at PAL. system, 14.30MHz at MPAL system.
17	OSCIN		I	
18	HOR*	Horizontal sync signal	I	Inputs horizontal sync signal. Hysteresis input.
19	VERT*	Vertical Sync signal	I	Inputs vertical sync signal. Hysteresis input. Polarity can be selected at ROM mask.
20	V_{DD1}	Power supply	—	Power supply terminal of digital system. Connect to +5V.

TC514256BZL-60
(DS: IC007, 008)

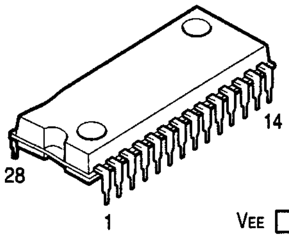


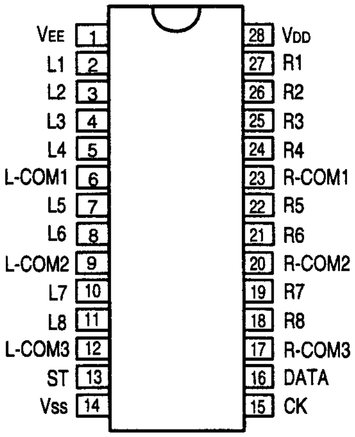

$\overline{OE}$ 1
2 $\overline{CAS}$
I/O3 3
4 I/O4
Vss 5
6 I/O1
I/O2 7
8 $\overline{WRITE}$
$\overline{RAS}$ 9
A0 11
12 A1
A2 13
14 A3
Vcc 15
16 A4
A5 17
18 A6
A7 19
20 A8

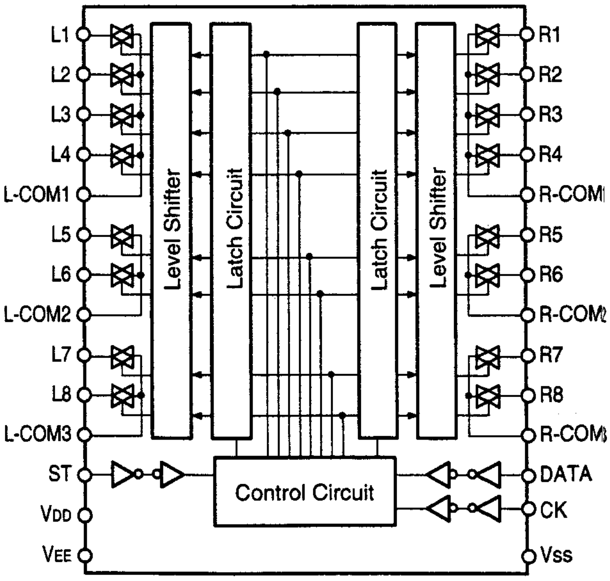
TC514256 BZL-60 Terminal Function

Pin No.	Symbol	Function
1	$\overline{OE}$	Ouput enable signal.
2	$\overline{CAS}$	Column address strobe signal.
3	I/O3	Data input/output.
4	I/O4	Data input/output.
5	Vss	Ground.
6	I/O1	Data input/output.
7	I/O2	Data input/output.
8	$\overline{WRITE}$	Read/write input.
9	$\overline{RAS}$	Low address strobe signal.
10	N.C.	No connection.
11	A0	Address input.
12	A1	Address input.
13	A2	Address input.
14	A3	Address input.
15	Vcc	+5V power supply.
16	A4	Address input.
17	A5	Address input.
18	A6	Address input.
19	A7	Address input.
20	A8	Address input.

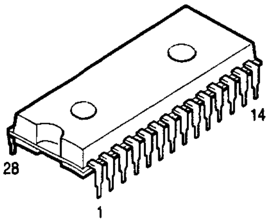
NJU7313AL
(DI: IC404)

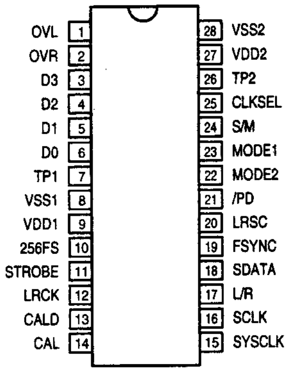


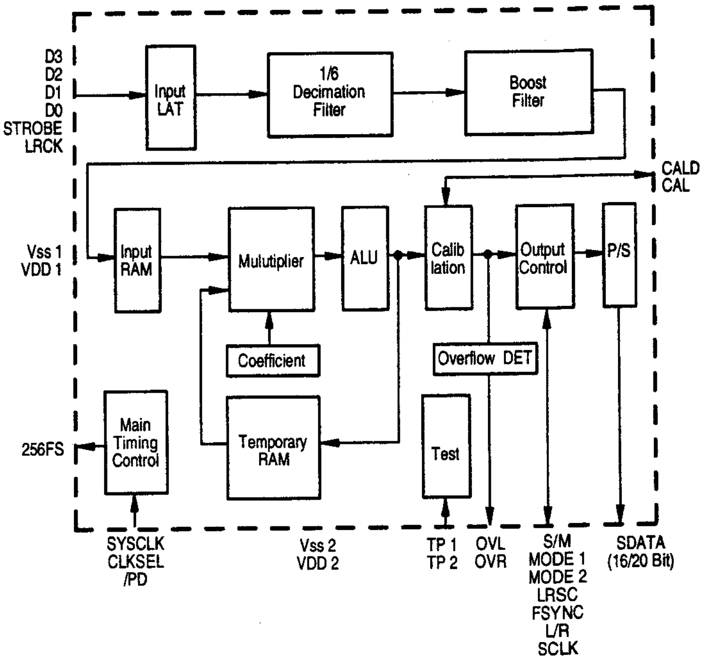

VEE 1
L1 2
L2 3
L3 4
L4 5
L-COM1 6
L5 7
L6 8
L-COM2 9
L7 10
L8 11
L-COM3 12
ST 13
Vss 14
28 VDD
27 R1
26 R2
25 R3
24 R4
23 R-COM1
22 R5
21 R6
20 R-COM2
19 R7
18 R8
17 R-COM3
16 DATA
15 CK


L1
L2
L3
L4
L-COM1
L5
L6
L-COM2
L7
L8
L-COM3
ST
VDD
VEE
Level Shifter
Latch Circuit
Latch Circuit
Level Shifter
Control Circuit
R1
R2
R3
R4
R-COM1
R5
R6
R-COM2
R7
R8
R-COM3
DATA
CK
Vss

DF1760P
(DG: IC172)



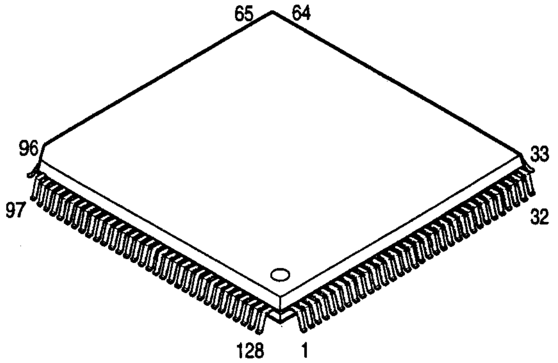

OVL 1
OVR 2
D3 3
D2 4
D1 5
D0 6
TP1 7
VSS1 8
VDD1 9
256FS 10
STROBE 11
LRCK 12
CALD 13
CAL 14
28 VSS2
27 VDD2
26 TP2
25 CLKSEL
24 S/M
23 MODE1
22 MODE2
21 /PD
20 LRSC
19 FSYNC
18 SDATA
17 L/R
16 SCLK
15 SYSCLK

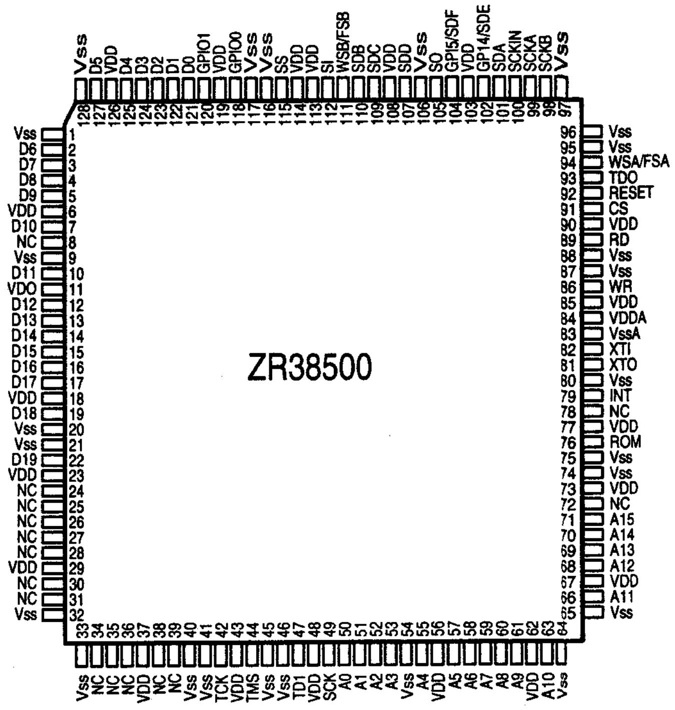

D3
D2
D1
D0
STROBE
LRCK
Input LAT
1/6 Decimation Filter
Boost Filter
CALD
CAL
Vss 1
VDD 1
Input RAM
Mulutiplier
ALU
Calib lation
Output Control
P/S
Coefficient
Overflow DET
256FS
Main Timing Control
Temporary RAM
Test
SYSCLK
CLKSEL
/PD
Vss 2
VDD 2
TP 1
TP 2
OVL
OVR
S/M
MODE 1
MODE 2
LRSC
FSYNC
L/R
SCLK
SDATA
(16/20 Bit)

DF1760P Terminal Function

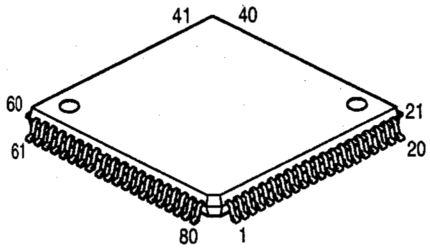
Pin No.	Symbol	I/O	Function
1	OVL	O	Lch overflow detection (H: Detection).
2	OVR	O	Rch overflow detection (H: Detection).
3	D3	I	Data input (MSB side).
4	D2	I	Data input.
5	D1	I	Data input.
6	D0	I	Data input (LSB side).
7	TP1	—	Test terminal (No connection).
8	VSS1	—	Ground for modulator.
9	VDD1	—	+5V power supply for modulator.
10	256fs	O	System clock output (256fs).
11	STROBE	I	Data strobe input (128fs).
12	LRCK	I	L/R clock input.
13	CALD	I	Calibration selecting (L: Effective).
14	CAL	O	Calibration input (H: During Execution).
15	SYSCLK	I	System clock input (256fs/384fs).
16	SCLK	I/O	Data clock (32fs-64fs).
17	L/R	I/O	L/R channel dividing clock signal.
18	SDATA	O	Serial data input.
19	FSYNC	I/O	Frame sync clock signal (2fs).
20	LRSC	I	L/R logical switching.
21	/PD	I	Power down mode (L: Power down).
22	MODE2	I	Output data model selection.
23	MODE1	I	Output data model selection.
24	S/M	I	Slave/Master mode selection (H: Slave).
25	CLKSEL	I	System clock selection (H: 256fs).
26	TP2	—	Test terminal (No connection).
27	VDD2	—	Digital power supply (+5V).
28	VSS2	—	Digital ground.

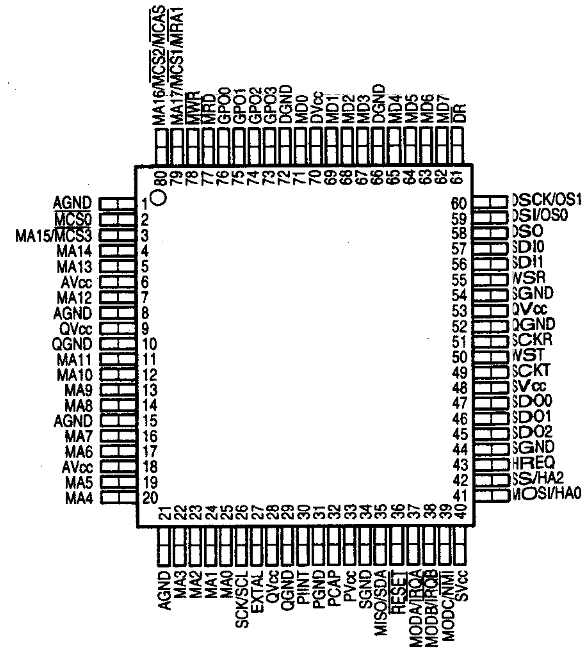
ZR38500(DS:IC001)


65
64
96
33
97
32
128
1

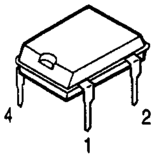

ZR38500
Vss 128
D5 127
VDD 126
D4 125
D3 124
D2 123
D1 122
D0 121
GPIO1 120
VDD 119
GPIO0 118
Vss 117
Vss 116
SS 115
VDD 114
VDD 113
SI 112
WSB/FSB 111
SDB 110
SDC 109
VDD 108
SDD 107
Vss 106
SO 105
GPI5/SDF 104
VDD 103
GP14/SDE 102
SDA 101
SCKIN 100
SCKA 99
SCKB 98
Vss 97
Vss 1
D6 2
D7 3
D8 4
D9 5
VDD 6
D10 7
NC 8
Vss 9
D11 10
VDD 11
D12 12
D13 13
D14 14
D15 15
D16 16
D17 17
VDD 18
D18 19
Vss 20
Vss 21
D19 22
VDD 23
NC 24
NC 25
NC 26
NC 27
NC 28
VDD 29
NC 30
NC 31
Vss 32
Vss 33
NC 34
NC 35
NC 36
VDD 37
NC 38
NC 39
Vss 40
Vss 41
TCK 42
VDD 43
TMS 44
Vss 45
Vss 46
TD1 47
VDD 48
SCK 49
A0 50
A1 51
A2 52
A3 53
Vss 54
A4 55
VDD 56
A5 57
A6 58
A7 59
A8 60
A9 61
VDD 62
A10 63
Vss 64
96 Vss
95 Vss
94 WSA/FSA
93 TDO
92 RESET
91 CS
90 VDD
89 RD
88 Vss
87 Vss
86 WR
85 VDD
84 VDDA
83 VssA
82 XTI
81 XTO
80 Vss
79 INT
78 NC
77 VDD
76 ROM
75 Vss
74 Vss
73 VDD
72 NC
71 A15
70 A14
69 A13
68 A12
67 VDD
66 A11
65 Vss

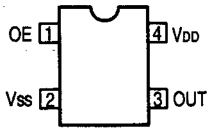
DSP56004(DS:IC002)


41
40
60
21
61
20
80
1

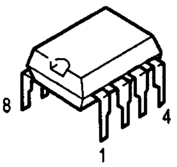

MA16/MCS2/MCAS 80
MA17/MCS1/MRA1 79
MWR 78
MRD 77
GPO0 76
GPO1 75
GPO2 74
GPO3 73
DGND 72
MD0 71
DVcc 70
MD1 69
MD2 68
MD3 67
DGND 66
MD4 65
MD5 64
MD6 63
MD7 62
DR 61
AGND 1
MCS0 2
MA15/MCS3 3
MA14 4
MA13 5
AVcc 6
MA12 7
AGND 8
QVcc 9
QGND 10
MA11 11
MA10 12
MA9 13
MA8 14
AGND 15
MA7 16
MA6 17
AVcc 18
MA5 19
MA4 20
AGND 21
MA3 22
MA2 23
MA1 24
MA0 25
SCK/SCL 26
EXTAL 27
QVcc 28
QGND 29
PIINT 30
PGND 31
PCAP 32
PVcc 33
SGND 34
MISO/SDA 35
RESET 36
MODA/IRQA 37
MODB/IRQB 38
MODC/NMI 39
SVcc 40
60 DSCK/OS1
59 DSI/OS0
58 DSO
57 SDI0
56 SDI1
55 WSR
54 SGND
53 QVcc
52 QGND
51 SCKR
50 WST
49 SCKT
48 SVcc
47 SDO0
46 SDO1
45 SDO2
44 SGND
43 HREQ
42 SS/HA2
41 MOSI/HA0

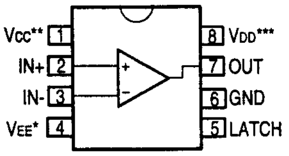
SG-531PH(33MHz)
(DS:IC003)
SG-531PH(46.08MHz)
(DS:IC027)
SG-531PH(12.288MHz)
(DG:IC173)




OE 1
Vss 2
4 VDD
3 OUT

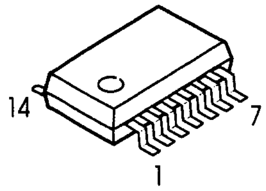
MAX903CPA
(DS:IC023)



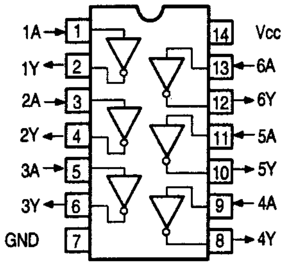

Vcc** 1
IN+ 2
IN- 3
VEE* 4
8 VDD***
7 OUT
6 GND
5 LATCH
+
-

* ANALOG V-
AND SUBSTRATE
** ANALOG V+
***ANALOG V+

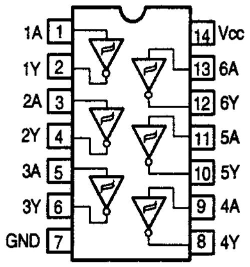
HD74HC04FP (DS: IC004, 020)
HD74HC14FP (DS: IC006)
HD74HC74FP (DS: IC017, 029)
TC74HC00AF (DS: IC009, 032)
TC74HC164AF (DS: IC016, 019)
TC74HC7266AF (DS: IC018)
TC74HCU04AF
(DS: IC013, 024, 037)



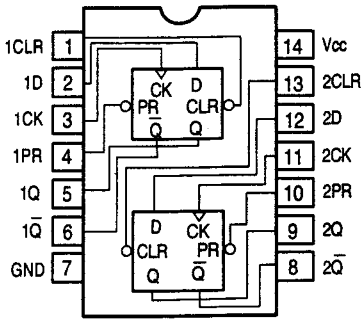
HD74HC04FP
TC74HCU04AF


1A 1
1Y 2
2A 3
2Y 4
3A 5
3Y 6
GND 7
14 Vcc
13 6A
12 6Y
11 5A
10 5Y
9 4A
8 4Y

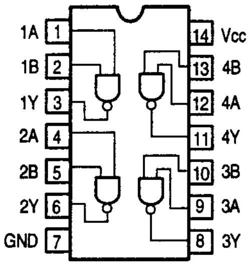
HD74HCU14FP


1A 1
1Y 2
2A 3
2Y 4
3A 5
3Y 6
GND 7
14 Vcc
13 6A
12 6Y
11 5A
10 5Y
9 4A
8 4Y

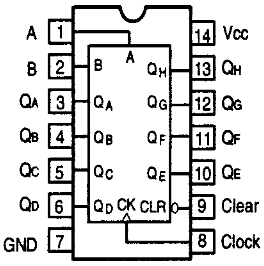
HD74HC74FP


1CLR 1
1D 2
1CK 3
1PR 4
1Q 5
1$\overline{Q}$ 6
GND 7
14 Vcc
13 2CLR
12 2D
11 2CK
10 2PR
9 2Q
8 2$\overline{Q}$
CK D
PR CLR
$\overline{Q}$ Q
D CK
CLR PR
Q $\overline{Q}$

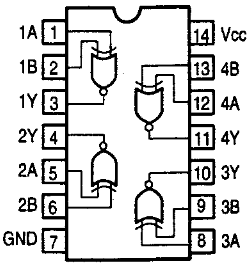
TC74HC00AF


1A 1
1B 2
1Y 3
2A 4
2B 5
2Y 6
GND 7
14 Vcc
13 4B
12 4A
11 4Y
10 3B
9 3A
8 3Y

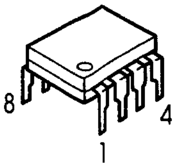
TC74HC164AF

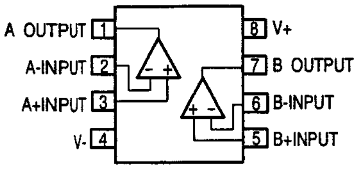

A 1
B 2
QA 3
QB 4
QC 5
QD 6
GND 7
14 Vcc
13 QH
12 QG
11 QF
10 QE
9 Clear
8 Clock
B A QH
QA QG
QB QF
QC QE
QD CK CLR

TC74HC7266AF

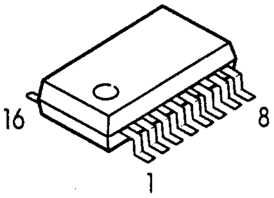

1A 1
1B 2
1Y 3
2Y 4
2A 5
2B 6
GND 7
14 Vcc
13 4B
12 4A
11 4Y
10 3Y
9 3B
8 3A

BA15218 (PO: IC425, 427)
NJM4556AD (DI: IC426)
NJM4560DD (DS: IC022,025)

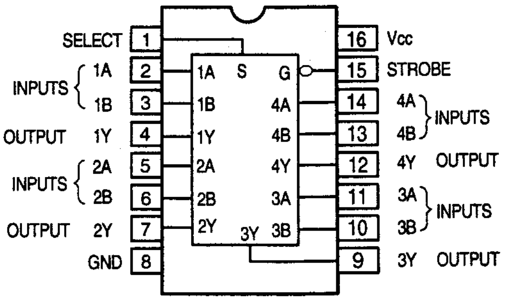



A OUTPUT 1
A-INPUT 2
A+INPUT 3
V- 4
8 V+
7 B OUTPUT
6 B-INPUT
5 B+INPUT
- +
+ -

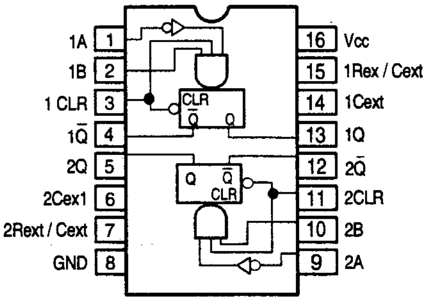
HD74HC157FP (DS: IC030)
TC74HC123AF (DS: IC033)
TC74HC151AF (DS: IC014, 015)



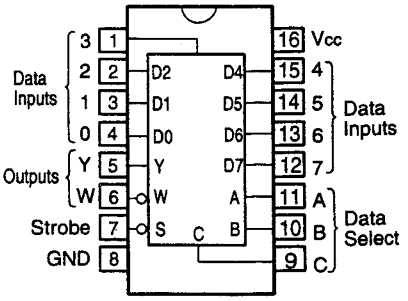
HD74HC157FP


SELECT 1
INPUTS 1A 2
1B 3
OUTPUT 1Y 4
INPUTS 2A 5
2B 6
OUTPUT 2Y 7
GND 8
16 Vcc
15 STROBE
14 4A INPUTS
13 4B
12 4Y OUTPUT
11 3A INPUTS
10 3B
9 3Y OUTPUT
1A S G
1B 4A
1Y 4B
2A 4Y
2B 3A
2Y 3Y 3B

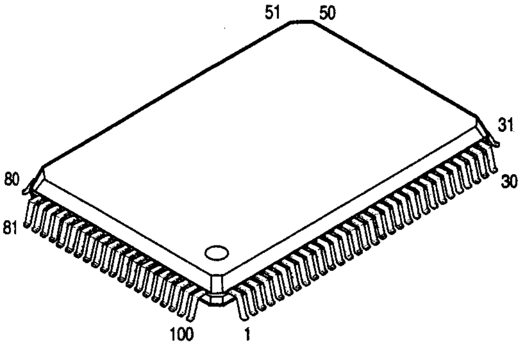
TC74HC123AF

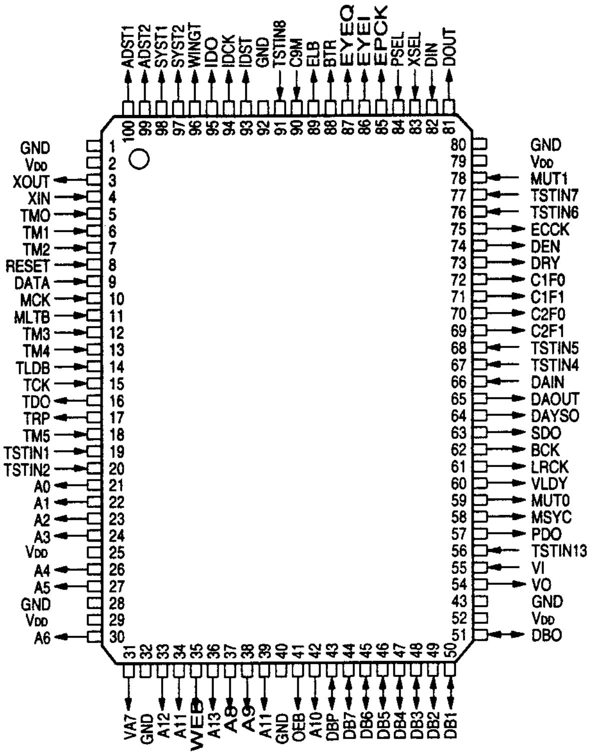

1A 1
1B 2
1 CLR 3
1$\overline{Q}$ 4
2Q 5
2Cex1 6
2Rext / Cext 7
GND 8
16 Vcc
15 1Rex / Cext
14 1Cext
13 1Q
12 2$\overline{Q}$
11 2CLR
10 2B
9 2A
CLR
$\overline{Q}$ Q
Q $\overline{Q}$
CLR

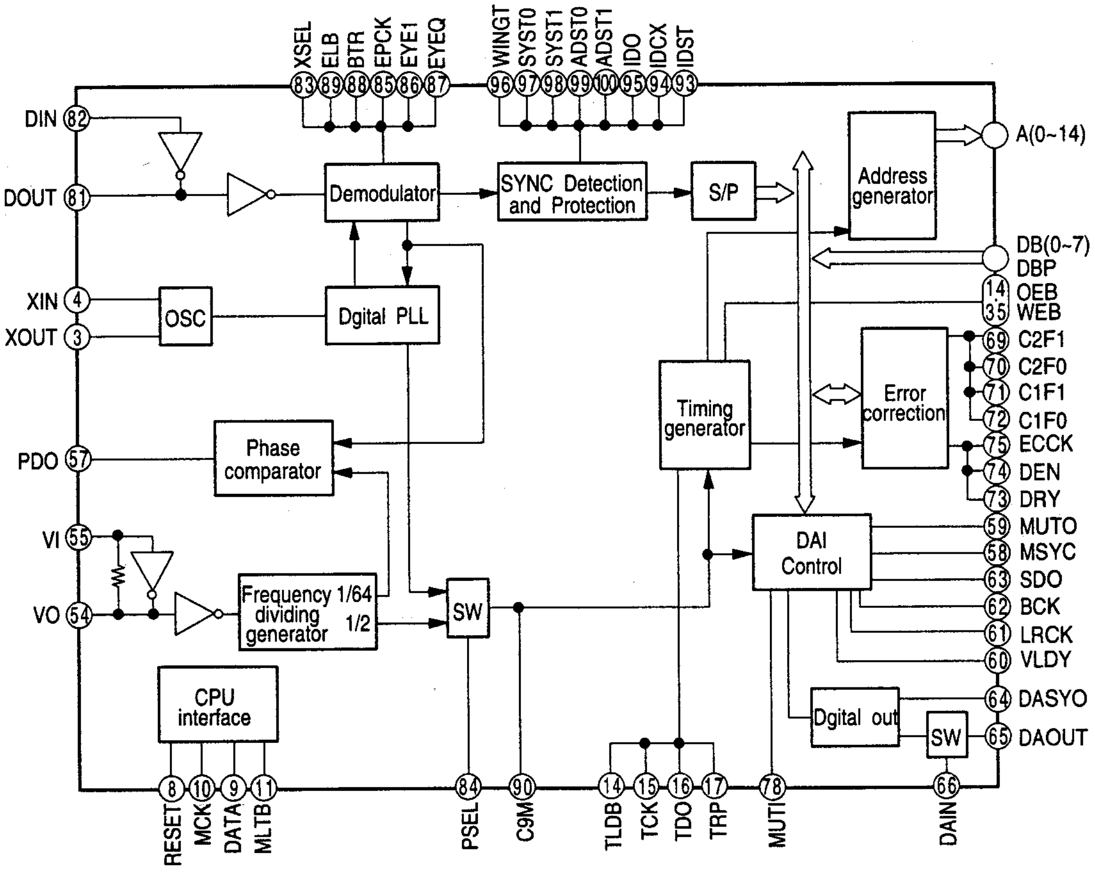
TC74HC151AF


Data Inputs
3 1
2 2
1 3
0 4
Outputs
Y 5
W 6
Strobe 7
GND 8
16 Vcc
15 4
14 5
13 6
12 7
Data Inputs
11 A
10 B
9 C
Data Select
D2 D4
D1 D5
D0 D6
Y D7
W A
S C B

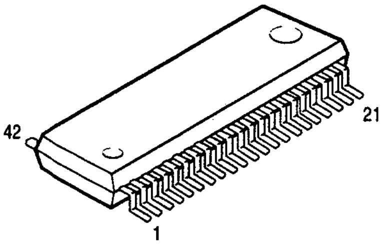
PD4606A
(DS: IC026)

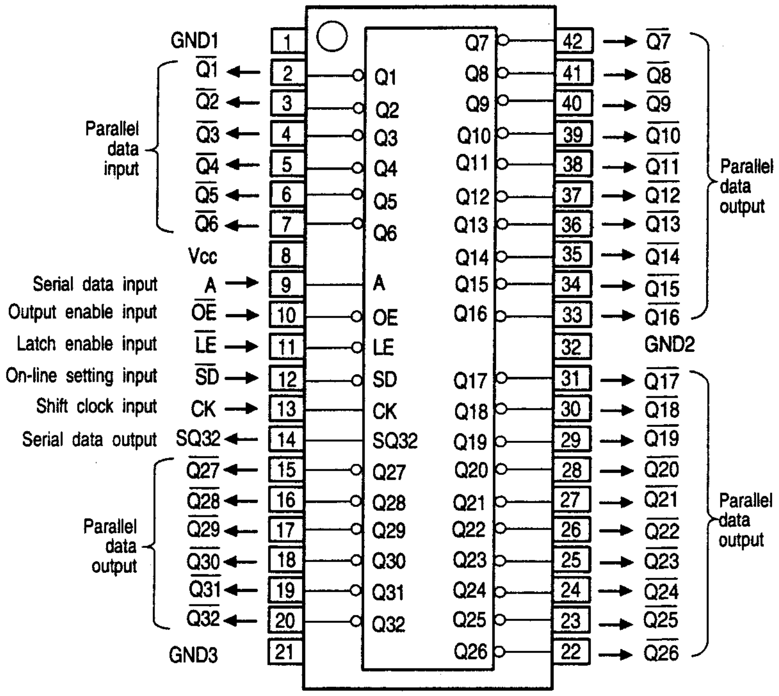

51
50
31
30
80
81
100
1


ADST1
ADST2
SYST1
SYST2
WINGT
IDO
IDCK
IDST
GND
TSTIN8
C9M
ELB
BTR
EYEQ
EYEI
EPCK
PSEL
XSEL
DIN
DOUT
100
99
98
97
96
95
94
93
92
91
90
89
88
87
86
85
84
83
82
81
GND 1
VDD 2
XOUT 3
XIN 4
TMO 5
TM1 6
TM2 7
RESET 8
DATA 9
MCK 10
MLTB 11
TM3 12
TM4 13
TLDB 14
TCK 15
TDO 16
TRP 17
TM5 18
TSTIN1 19
TSTIN2 20
A0 21
A1 22
A2 23
A3 24
VDD 25
A4 26
A5 27
GND 28
VDD 29
A6 30
80 GND
79 VDD
78 MUT1
77 TSTIN7
76 TSTIN6
75 ECCK
74 DEN
73 DRY
72 C1F0
71 C1F1
70 C2F0
69 C2F1
68 TSTIN5
67 TSTIN4
66 DAIN
65 DAOUT
64 DAYSO
63 SDO
62 BCK
61 LRCK
60 VLDY
59 MUTO
58 MSYC
57 PDO
56 TSTIN13
55 VI
54 VO
43 GND
52 VDD
51 DBO
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
VA7
GND
A12
A11
WEB
A13
A8
A9
A11
GND
OEB
A10
DBP
DB7
DB6
DB5
DB4
DB3
DB2
DB1

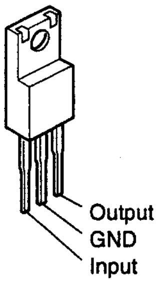

XSEL
ELB
BTR
EPCK
EYE1
EYEQ
WINGT
SYST0
SYST1
ADST0
ADST1
IDO
IDCX
IDST
83
89
88
85
86
87
96
97
98
99
100
95
94
93
DIN 82
DOUT 81
XIN 4
XOUT 3
PDO 57
VI 55
VO 54
Demodulator
SYNC Detection and Protection
S/P
Address generator
A(0~14)
DB(0~7)
DBP
14 OEB
35 WEB
OSC
Dgital PLL
Error correction
69 C2F1
70 C2F0
71 C1F1
72 C1F0
75 ECCK
74 DEN
73 DRY
Phase comparator
Timing generator
DAI Control
59 MUTO
58 MSYC
63 SDO
62 BCK
61 LRCK
60 VLDY
Frequency dividing generator
1/64
1/2
SW
CPU interface
Dgital out
SW
64 DASYO
65 DAOUT
8
10
9
11
RESET
MCK
DATA
MLTB
84
PSEL
90
C9M
14
15
16
17
TLDB
TCK
TDO
TRP
78
MUTI
66
DAIN

M66313FP(DI: IC101)

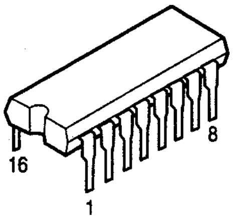


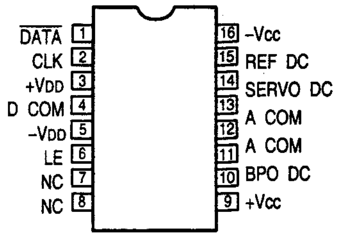

GND1 1
$\overline{Q1}$ 2
$\overline{Q2}$ 3
$\overline{Q3}$ 4
$\overline{Q4}$ 5
$\overline{Q5}$ 6
$\overline{Q6}$ 7
Parallel data input
Vcc 8
Serial data input A 9
Output enable input $\overline{OE}$ 10
Latch enable input $\overline{LE}$ 11
On-line setting input $\overline{SD}$ 12
Shift clock input CK 13
Serial data output SQ32 14
$\overline{Q27}$ 15
$\overline{Q28}$ 16
$\overline{Q29}$ 17
$\overline{Q30}$ 18
$\overline{Q31}$ 19
$\overline{Q32}$ 20
Parallel data output
GND3 21
Q1
Q2
Q3
Q4
Q5
Q6
A
OE
LE
SD
CK
SQ32
Q27
Q28
Q29
Q30
Q31
Q32
Q7
Q8
Q9
Q10
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
Q19
Q20
Q21
Q22
Q23
Q24
Q25
Q26
42 $\overline{Q7}$
41 $\overline{Q8}$
40 $\overline{Q9}$
39 $\overline{Q10}$
38 $\overline{Q11}$
37 $\overline{Q12}$
36 $\overline{Q13}$
35 $\overline{Q14}$
34 $\overline{Q15}$
33 $\overline{Q16}$
Parallel data output
32 GND2
31 $\overline{Q17}$
30 $\overline{Q18}$
29 $\overline{Q19}$
28 $\overline{Q20}$
27 $\overline{Q21}$
26 $\overline{Q22}$
25 $\overline{Q23}$
24 $\overline{Q24}$
23 $\overline{Q25}$
22 $\overline{Q26}$
Parallel data output

NJM7805FA(S)
(DG:IC101~105,107)(VI: IC903)
NJM7806FA(S)(PO: IC969,971,973)
NJM7809FA(S)(VI: IC904)
NJM7815FA(VI: IC965)

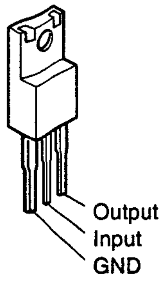

Output
GND
Input

PCM1702P-L(DG: IC201~204)

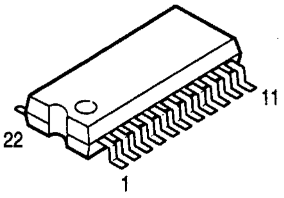


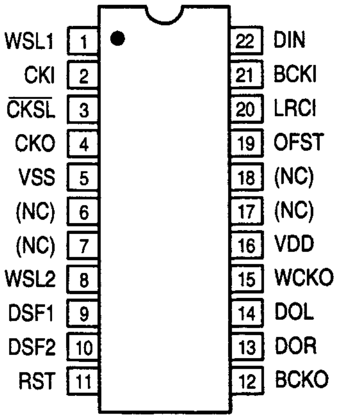

$\overline{DATA}$ 1
CLK 2
+VDD 3
D COM 4
-VDD 5
LE 6
NC 7
NC 8
16 -Vcc
15 REF DC
14 SERVO DC
13
A COM
12
A COM
11
10 BPO DC
9 +Vcc

NJM7905FA(DG: IC106,108)
NJM7906FA(PO: IC970, 972)
NJM7915FA(VI: IC966)

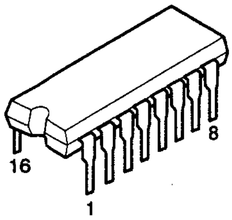

Output
Input
GND

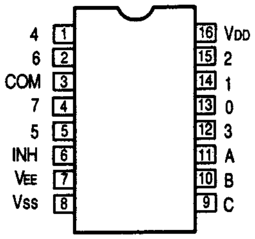
SM5841HS
(DG: IC211~213)

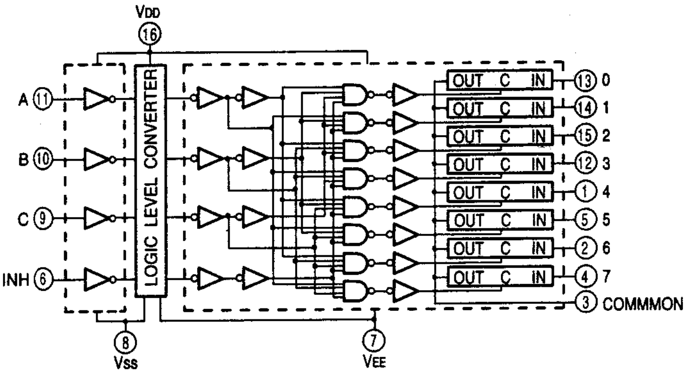



WSL1 1
CKI 2
$\overline{CKSL}$ 3
CKO 4
VSS 5
(NC) 6
(NC) 7
WSL2 8
DSF1 9
DSF2 10
RST 11
22 DIN
21 BCKI
20 LRCI
19 OFST
18 (NC)
17 (NC)
16 VDD
15 WCKO
14 DOL
13 DOR
12 BCKO

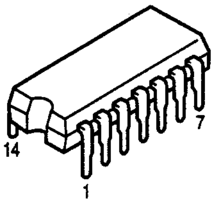
TC4051BP
(VI: IC754, 755, 803, 804, 807, 808)

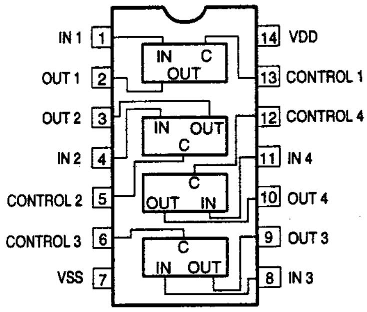



4 1
6 2
COM 3
7 4
5 5
INH 6
VEE 7
Vss 8
16 VDD
15 2
14 1
13 0
12 3
11 A
10 B
9 C

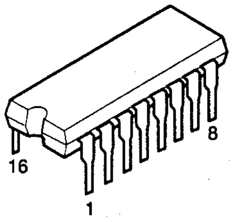

VDD
16
A 11
B 10
C 9
INH 6
LOGIC LEVEL CONVERTER
OUT C IN
13 0
14 1
15 2
12 3
1 4
5 5
2 6
4 7
3 COMMMON
8
Vss
7
VEE

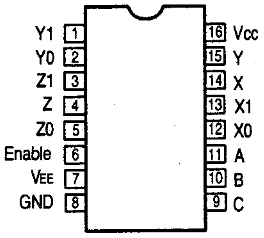
HD14066BP
(VI: IC756, 757, 805, 811)




IN 1 1
OUT 1 2
OUT 2 3
IN 2 4
CONTROL 2 5
CONTROL 3 6
VSS 7
14 VDD
13 CONTROL 1
12 CONTROL 4
11 IN 4
10 OUT 4
9 OUT 3
8 IN 3
IN C OUT
IN OUT C
C OUT IN
C IN OUT

MC74HC4053N
(VI: IC813)

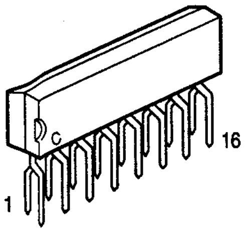


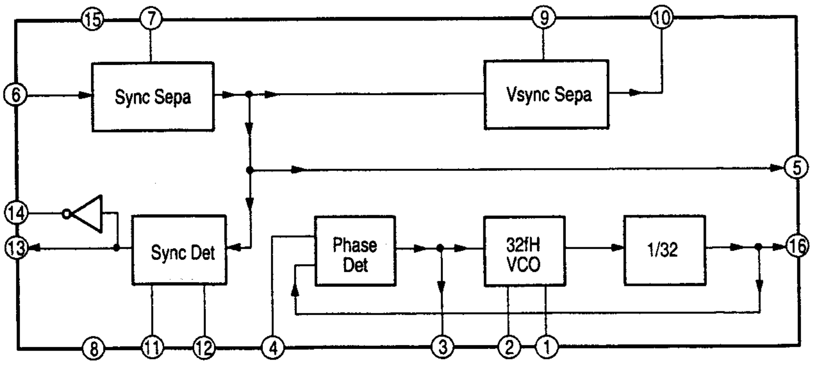

Y1 1
Y0 2
Z1 3
Z 4
Z0 5
Enable 6
VEE 7
GND 8
16 Vcc
15 Y
14 X
13 X1
12 X0
11 A
10 B
9 C

Control Inputs				ON Switches		
	Select					
Enable	C	B	A			
L	L	L	L	Z0	Y0	X0
L	L	L	H	Z0	Y0	X1
L	L	H	L	Z0	Y1	X0
L	L	H	H	Z0	Y1	X1
L	H	L	L	Z1	Y0	X0
L	H	L	H	Z1	Y0	X1
L	H	H	L	Z1	Y1	X0
L	H	H	H	Z1	Y1	X1
H	X	X	X	None		

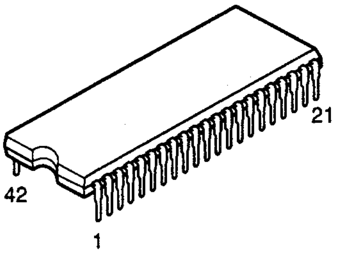
X = Don't Care

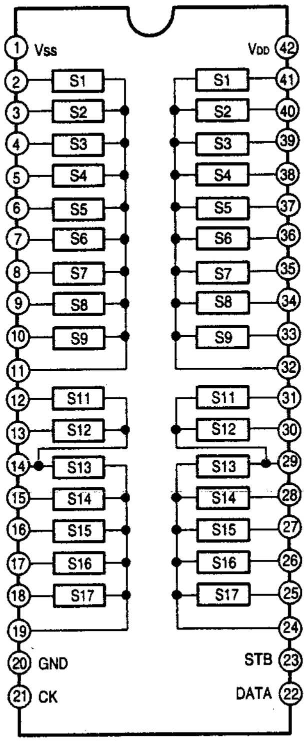
NJM2229S (VI: IC815)



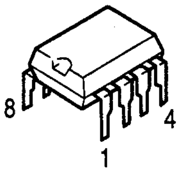

15
7
9
10
6
Sync Sepa
Vsync Sepa
5
14
13
Sync Det
Phase Det
32fH VCO
1/32
16
8
11
12
4
3
2
1

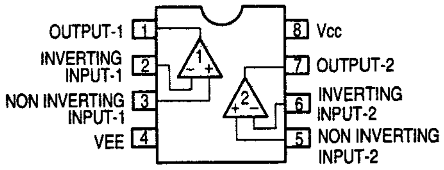
TC9274N-002(AU:IC402,403)



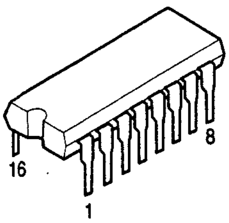

1 Vss
2 S1
3 S2
4 S3
5 S4
6 S5
7 S6
8 S7
9 S8
10 S9
11
12 S11
13 S12
14 S13
15 S14
16 S15
17 S16
18 S17
19
20 GND
21 CK
VDD 42
S1 41
S2 40
S3 39
S4 38
S5 37
S6 36
S7 35
S8 34
S9 33
32
S11 31
S12 30
S13 29
S14 28
S15 27
S16 26
S17 25
24
STB 23
DATA 22

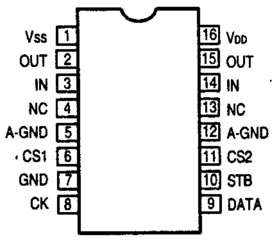
OP271
(AU: IC452)
MC14577CP
(VI: IC751~753, 758, 801, 802, 806, 809, 810, 812, 816)
(DS: IC021)
OP275GP
(AU: IC422, 429, 430) (PO: IC051, 651)
NJM2068DDC
(AU: IC418, 419, 421, 428, 433~436, 453~460, 701)
(DI : IC451, 652, 701)
NJM2068DAC
(DG: IC208~210, 722)
NJM5532DD
(DG: IC205~207)
NJM2082DD
(AU: IC420)

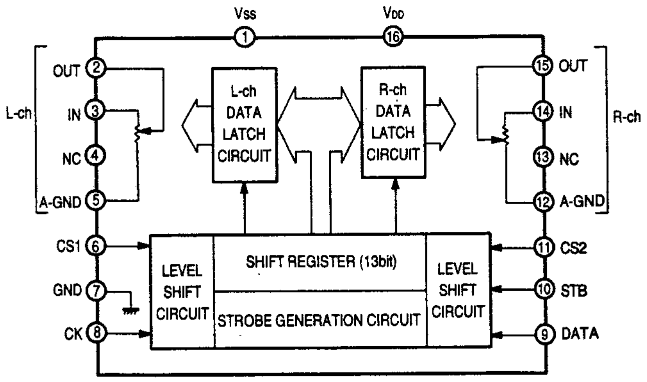



OUTPUT-1 1
INVERTING INPUT-1 2
NON INVERTING INPUT-1 3
VEE 4
8 Vcc
7 OUTPUT-2
6 INVERTING INPUT-2
5 NON INVERTING INPUT-2
1
2

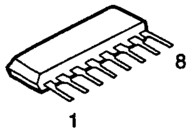
TC9299P
(DG: IC721)

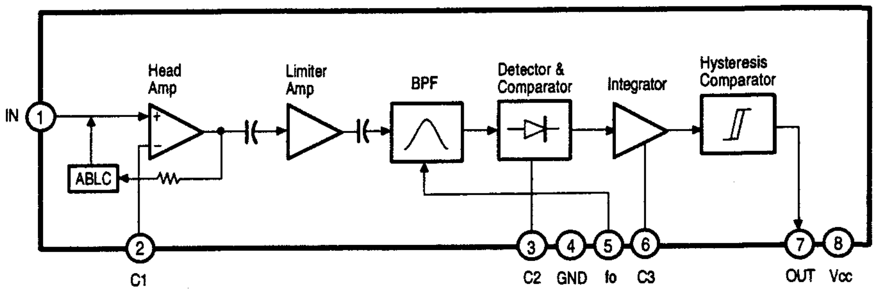



Vss 1
OUT 2
IN 3
NC 4
A-GND 5
CS1 6
GND 7
CK 8
16 VDD
15 OUT
14 IN
13 NC
12 A-GND
11 CS2
10 STB
9 DATA


Vss
VDD
1
16
L-ch
OUT 2
IN 3
NC 4
A-GND 5
CS1 6
GND 7
CK 8
L-ch DATA LATCH CIRCUIT
R-ch DATA LATCH CIRCUIT
LEVEL SHIFT CIRCUIT
SHIFT REGISTER (13bit)
STROBE GENERATION CIRCUIT
LEVEL SHIFT CIRCUIT
R-ch
15 OUT
14 IN
13 NC
12 A-GND
11 CS2
10 STB
9 DATA

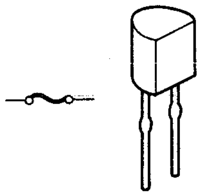
CX20106A
(VI: IC817)




Head Amp
Limiter Amp
BPF
Detector & Comparator
Integrator
Hysteresis Comparator
IN
1
ABLC
2
C1
3
4
5
6
C2
GND
fo
C3
7
8
OUT
Vcc

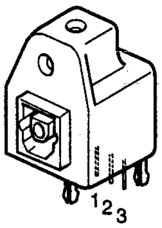
● IC PROTECTOR

ICP-N15 (PO: IC001)

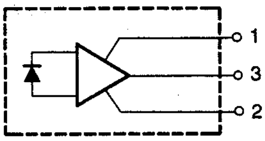


● OPTICAL

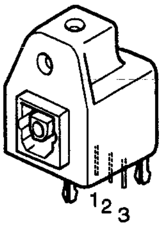
INPUT
GP1F32R
(DS: IC005, 010, 011)



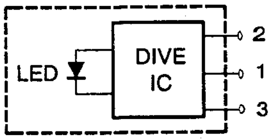
1. Vcc
2. GND
3. Vout



OUTPUT
GP1F32T
(DS: IC012)



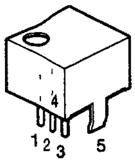
1. Vin
2. Vcc
3. GND


LED
DIVE IC
2
1
3

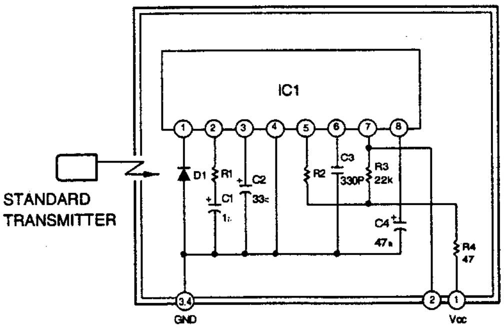
LED :Ga Al As
DRIVE IC :Silicon

● OTHER

SBX1610-52 (Remote Control Sensor)
(DI: IC103)



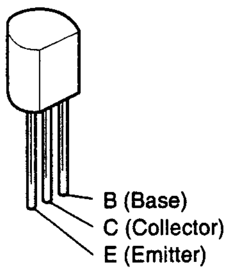
1. Vcc
2. Output
3. GND
4. Case Fin
5. Case Fin


STANDARD TRANSMITTER
IC1
1
2
3
4
5
6
7
8
D1
R1
C1
1μ
C2
33μ
R2
C3
330P
R3
22k
C4
47μ
R4
47
3.4
GND
2
1
Vcc

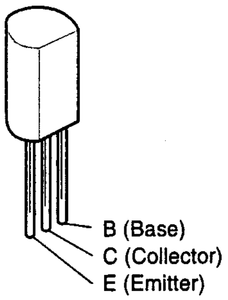
IC1 : CX20106A Chip
D1 : PIN Photodiode Chip
C1,C2,C4 : Aluminum Electrolytic Capacitor
C3 : SL Characteristic ±5%
R1 : Gain control resistor
R2 : fo control resistor (Using ±1%)
R (Other than above items)
: ±5%

●TRANSISTORS

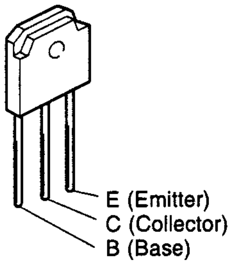
2SA988 (E/F)
2SC1815 (BL)
2SC2878 (A/B)


B (Base)
C (Collector)
E (Emitter)

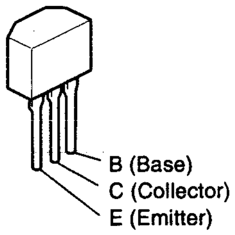
2SB1041 (R)
2SD1292 (R)


B (Base)
C (Collector)
E (Emitter)

2SC3853 (O/P/Y)(Z)

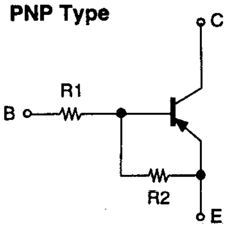

E (Emitter)
C (Collector)
B (Base)

DTA114ES
DTC114ES


B (Base)
C (Collector)
E (Emitter)

DTA114ES

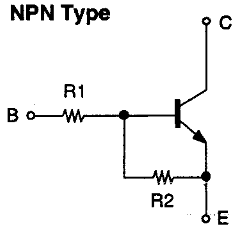
PNP Type



	R1	R2
DTA114ES	10kohm	10kohm

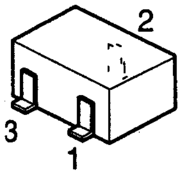
DTC114ES

NPN Type



	R1	R2
DTC114ES	10kohm	10kohm

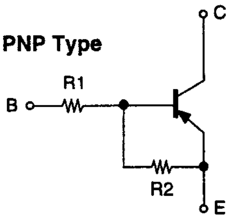
DTA114EK
DTA124EK
DTA143EK
DTC114EK
DTC143EK
DTC144EK



1: GND/Emitter
2: Out/Collector
3: In/Base

DTA114EK
DTA124EK
DTA143EK

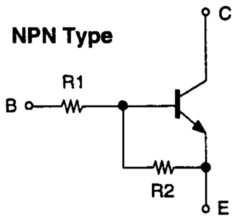
PNP Type



	R1	R2
DTA114EK	10kohm	10kohm
DTA124EK	22kohm	22kohm
DTA143EK	4.7kohm	4.7kohm

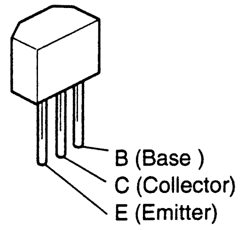
DTC114EK
DTC143EK
DTC144EK

NPN Type

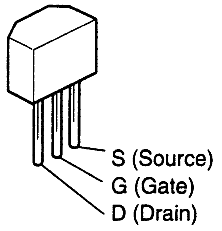


	R1	R2
DTC114EK	10kohm	10kohm
DTC143EK	4.7kohm	4.7kohm
DTC144EK	47kohm	47kohm

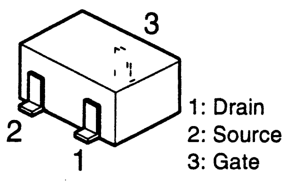
2SC1740S (E)


B (Base)
C (Collector)
E (Emitter)

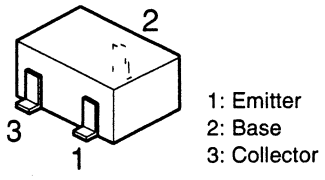
2SK184 (GR)/(BL)
2SK381 (B)/(C)


S (Source)
G (Gate)
D (Drain)

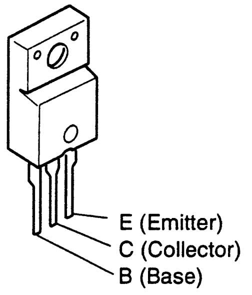
2SK209 (GR)


3
2
1
1: Drain
2: Source
3: Gate

2SA1037K (S/R)
2SC2412K (S)

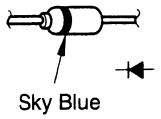

2
3
1
1: Emitter
2: Base
3: Collector

2SD1944

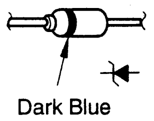

E (Emitter)
C (Collector)
B (Base)

● DIODES (included LED)

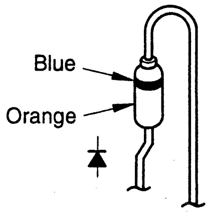
1SS270A
1S2076A



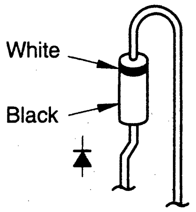
MTZJ3.3A MTZJ9.1A
MTZJ6.2A MTZJ36A
MTZJ7.5A HZS9C-1



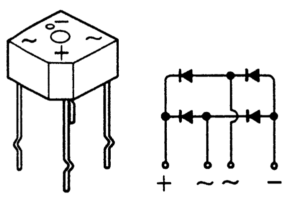
1SR35-200A


Blue
Orange

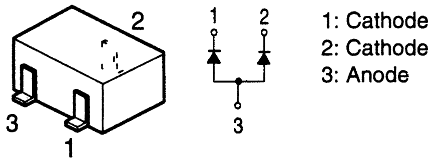
DSM1D2 (Type 3)


White
Black

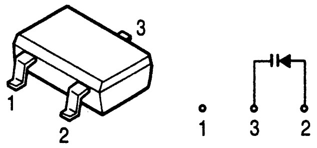
4D4B42(LC1)
(PO: D961)



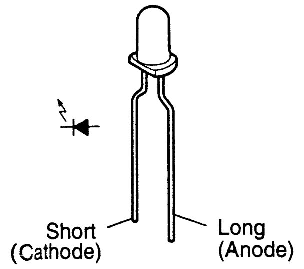
MA151A
(DS: D001~003)


2
3
1
1
2
3
1: Cathode
2: Cathode
3: Anode

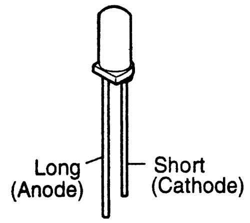
KV1851-TL
(DS: CD001)



SEL1210S (Red)
(DI: LD101~106)

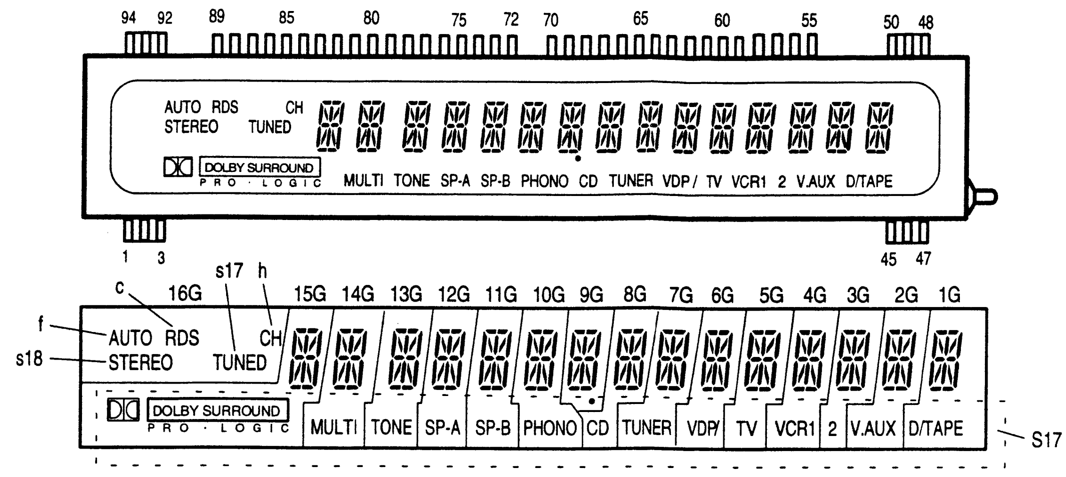

Short
(Cathode)
Long
(Anode)

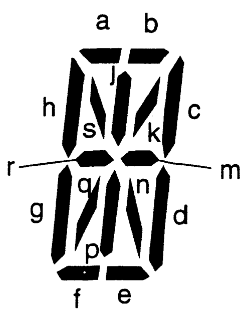
SEL-4414E (GN)
(DI: LD109, 110)
SEL-4214S (RD)
(DI: LD107, 108, 111, 112)
(AU: LD113~123)


Long
(Anode)
Short
(Cathode)

● DISPLAY

FL DISPLAY FIP16FM7R (Part No.: 3934156001) (DI: FL101)


94
92
89
85
80
75
72
70
65
60
55
50
48
AUTO RDS
STEREO TUNED
CH
DOLBY SURROUND
PRO LOGIC
MULTI TONE SP-A SP-B PHONO CD TUNER VDP/ TV VCR1 2 V.AUX D/TAPE
1
3
45
47
s17
h
c
16G
15G
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
f
s18
S17


a
b
j
h
s
k
c
r
m
g
q
n
d
p
f
e

(UPPER)

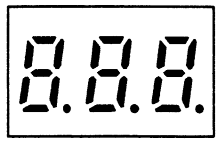
TERMINAL No.	94	93	92	91	90	89	88	87	86	85	84	83	82	81						
ELECTRODE	F1	F1	F1	NP	NP	P a	P b	P c	P j	P k	P s	P h	P r	P m						
TERMINAL No.	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61
ELECTRODE	P d	P n	P q	P p	P g	P f	P e	P s17	P s18	NP	16G	15G	14G	13G	12G	11G	10G	9G	8G	7G
TERMINAL No.								60	59	58	57	56	55	54	53	52	51	50	49	48
ELECTRODE								6G	5G	4G	3G	2G	1G	NP	NP	NP	NP	F2	F2	F2

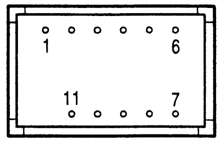
(LOWER)

TERMINAL No.								35	36	37	38	39	40	41	42	43	44	45	46	47
ELECTRODE								NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	F2	F2	F2
TERMINAL No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
ELECTRODE	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
TERMINAL No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
ELECTRODE	F1	F1	F1	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP						

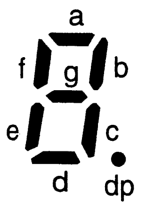
Notes: F: Filament G: Grid A: Anode NP: No Pin

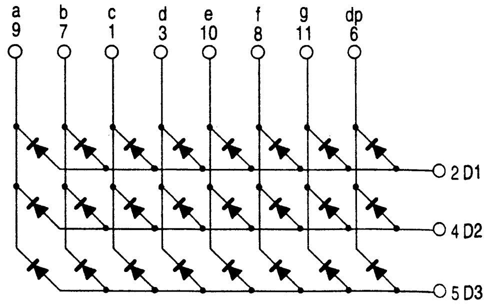
LB-303VA
(DI: LD124)





(BOTTOM VIEW)




a 9
b 7
c 1
d 3
e 10
f 8
g 11
dp 6
2 D1
4 D2
5 D3

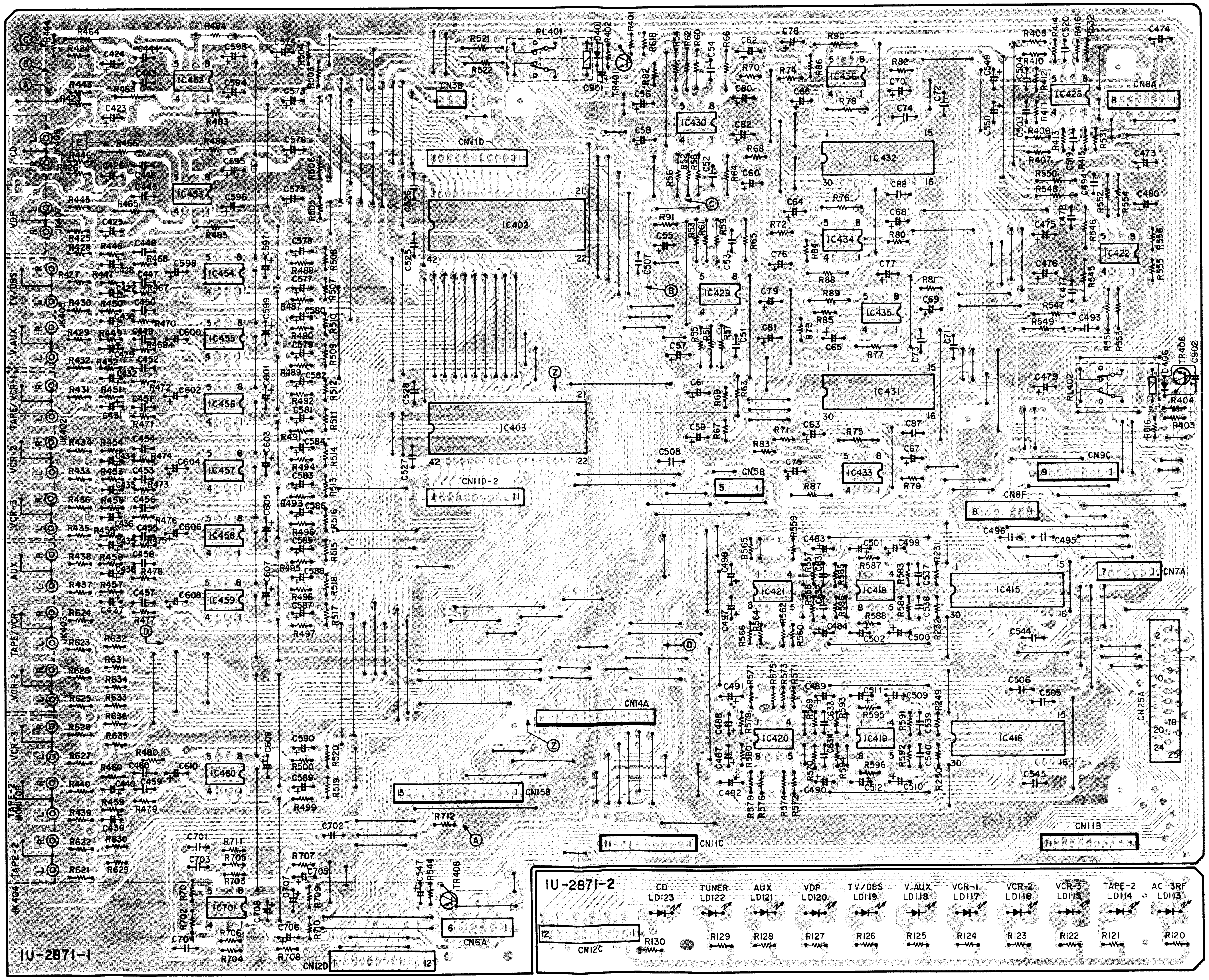
Pin connection

Pin No.	Function
1	c Segment cathode
2	Digit 1 common anode
3	d Segment cathode
4	Digit 2 common anode
5	Digit 3 common anode
6	D.P cathode
7	b Segment cathode
8	f Segment cathode
9	a Segment cathode
10	e Segment cathode
11	g Segment cathode

PRINTED WIRING BOARD (Pattern Side)

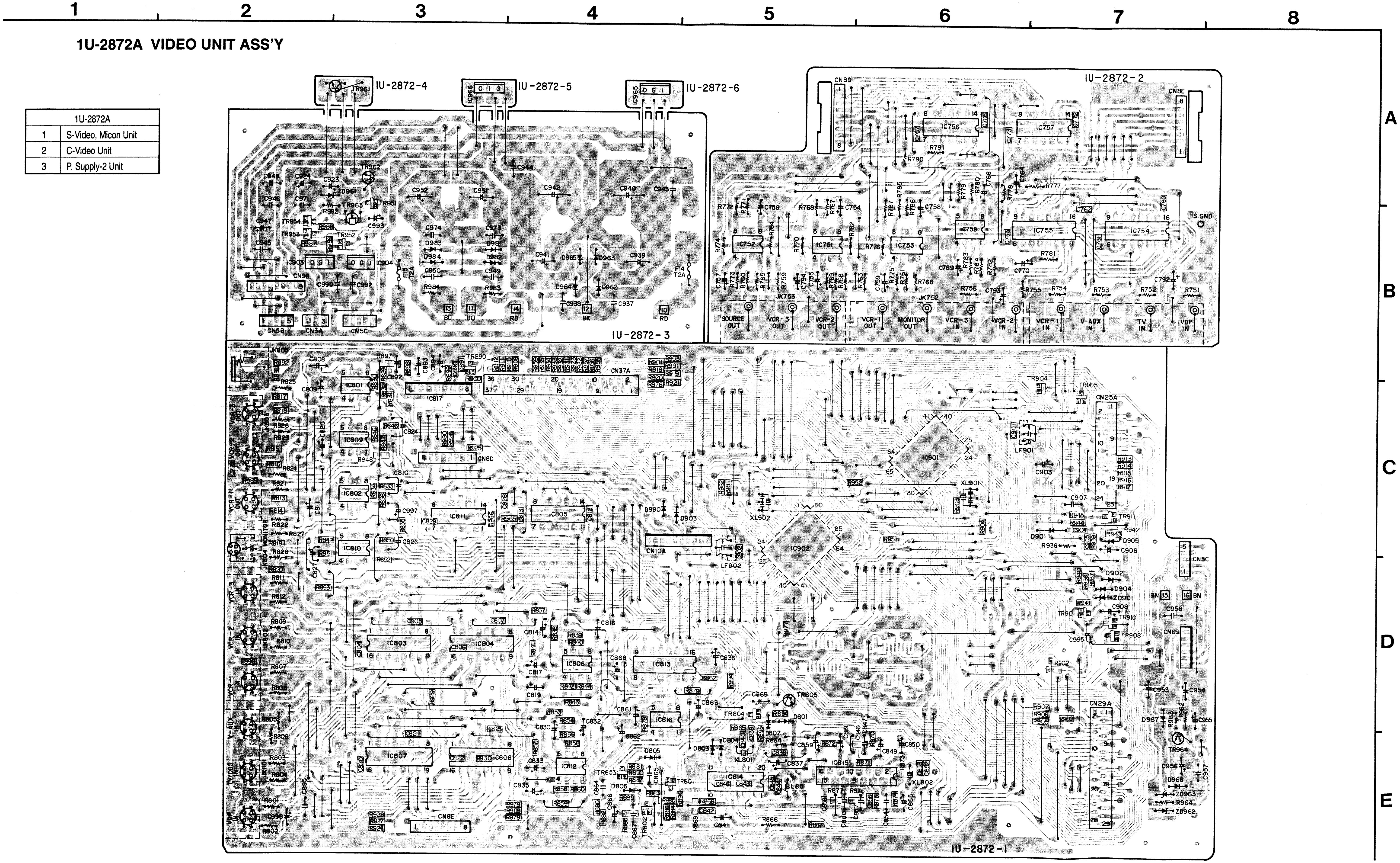
1U-2871A AUDIO UNIT ASS'Y

1U-2871A	
1	Audio Unit
2	Function LED Unit


1
2
3
4
5
6
7
8
A
B
C
D
E
1U-2871-1
1U-2871-2
IC402
IC403
IC415
IC416
IC418
IC419
IC420
IC421
IC422
IC428
IC429
IC430
IC431
IC432
IC433
IC434
IC435
IC436
IC452
IC453
IC454
IC455
IC456
IC457
IC458
IC459
IC460
IC701
RL401
RL402
TR401
TR406
TR408
CN3B
CN5B
CN6A
CN7A
CN8A
CN8F
CN9C
CN11B
CN11C
CN11D-1
CN11D-2
CN12C
CN12D
CN14A
CN15B
CN25A
JK401
JK402
JK403
JK404
JK405
JK406
JK407
CD
VDP
TV/DBS
V.AUX
TAPE/VCR-1
VCR-2
VCR-3
AUX
TAPE-2 MONITOR
TAPE-2
CD LD123
TUNER LD122
AUX LD121
VDP LD120
TV/DBS LD119
V.AUX LD118
VCR-1 LD117
VCR-2 LD116
VCR-3 LD115
TAPE-2 LD114
AC-3RF LD113
R130
R129
R128
R127
R126
R125
R124
R123
R122
R121
R120

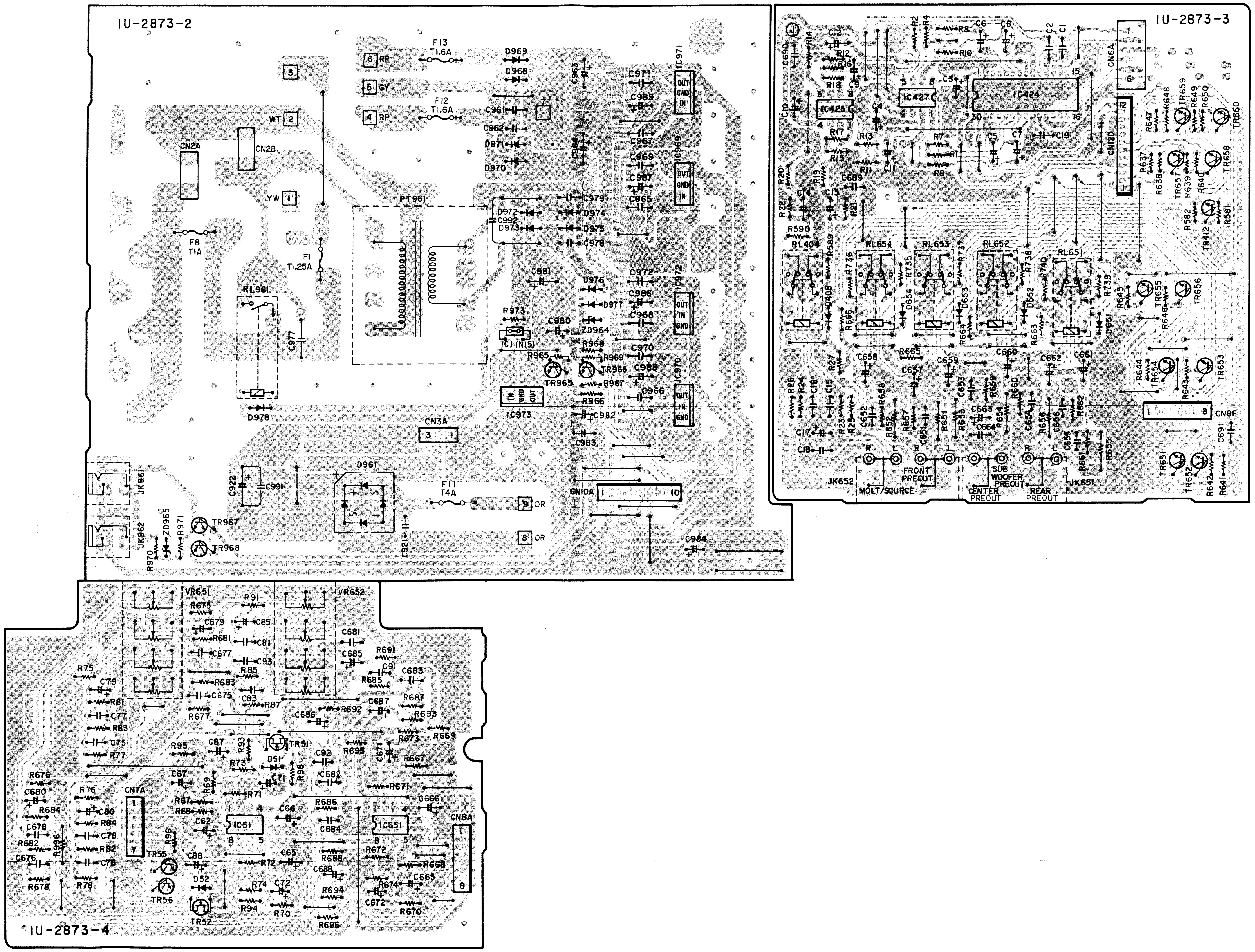
1U-2872A VIDEO UNIT ASS'Y

1U-2872A	
1	S-Video, Micon Unit
2	C-Video Unit
3	P. Supply-2 Unit

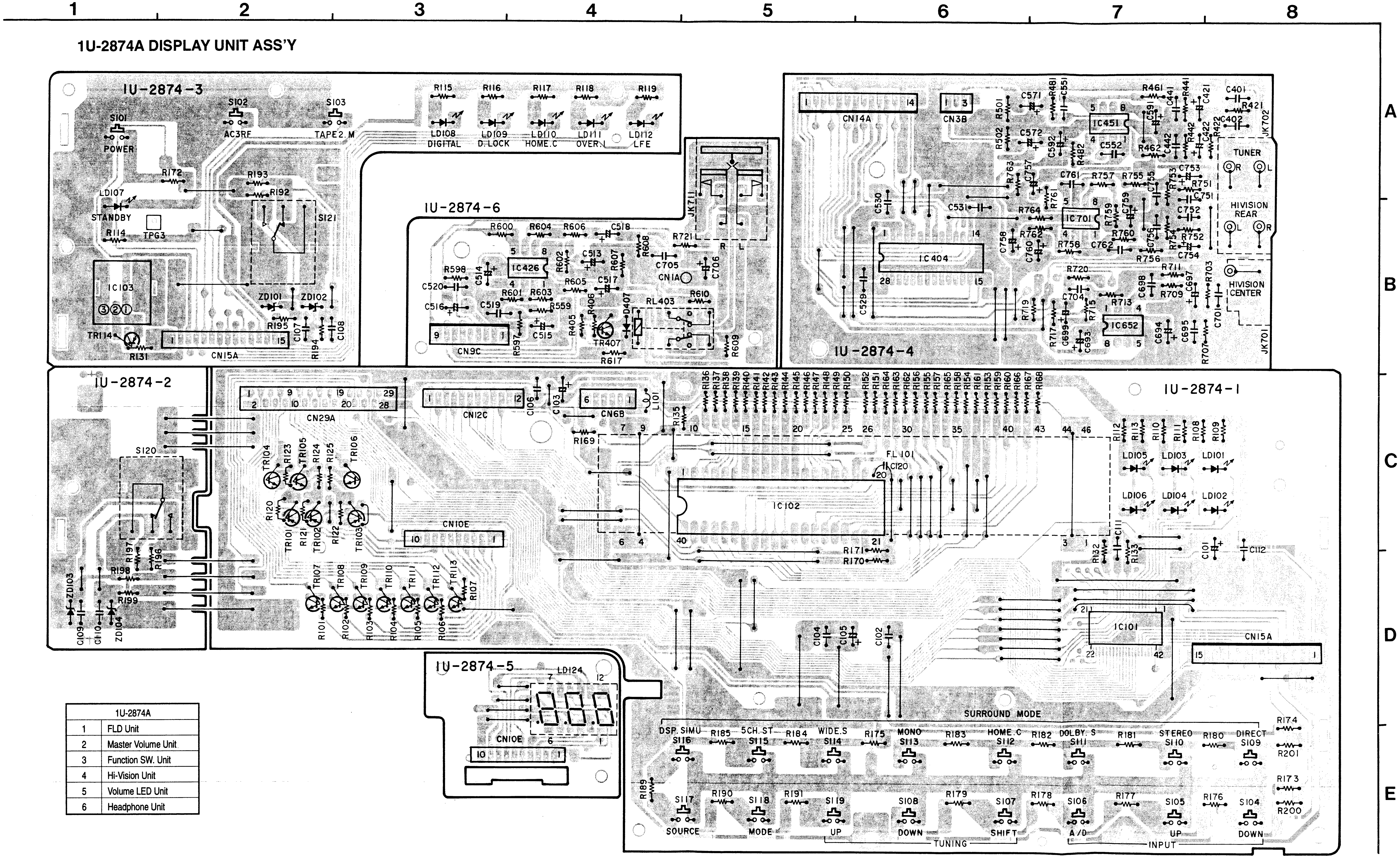

1
2
3
4
5
6
7
8
A
B
C
D
E
IU-2872-4
IU-2872-5
IU-2872-6
IU-2872-2
IU-2872-3
IU-2872-1
CN80
CN8E
S.GND
SOURCE OUT
VCR-3 OUT
VCR-2 OUT
VCR-1 OUT
MONITOR OUT
VCR-3 IN
VCR-2 IN
VCR-1 IN
V-AUX IN
TV IN
VDP IN
JK753
JK752
CN98
CN5B
CN3A
CN5C
F14 T2A
F15 T2A
BU
BK
RD
IC901
IC902
XL901
XL902
LF901
LF902
CN37A
CN25A
CN29A
CN10A
CN8D
CN6B
BN
JK805
JK804
JK803
JK802
JK801
IC801
IC802
IC803
IC804
IC805
IC806
IC807
IC808
IC809
IC810
IC811
IC812
IC813
IC814
IC815
IC816
IC817
IC751
IC752
IC753
IC754
IC755
IC756
IC757
IC758
IC903
IC904
IC965
IC966
TR961

1U-2873A POWER SUPPLY ASS'Y

1U-2873A	
1	—
2	P. Supply-1 Unit
3	Pre Out Unit
4	Tone Unit


1
2
3
4
5
6
7
8
A
B
C
D
E
1U-2873-2
1U-2873-3
1U-2873-4
PT961
RL961
CN2A
CN2B
CN3A
CN10A
IC971
IC969
IC972
IC970
IC973
D961
F13 T1.6A
F12 T1.6A
F8 T1A
F1 T1.25A
F11 T4A
JK961
JK962
TR967
TR968
TR965
TR966
6 RP
5 GY
4 RP
WT 2
YW 1
9 OR
8 OR
IC424
IC425
IC427
CN6A
CN12D
CN8F
RL404
RL654
RL653
RL652
RL651
JK652
JK651
FRONT PREOUT
SUB WOOFER PREOUT
CENTER PREOUT
REAR PREOUT
MOLT/SOURCE
VR651
VR652
IC51
IC651
CN7A
CN8A
TR51
TR52
TR55
TR56

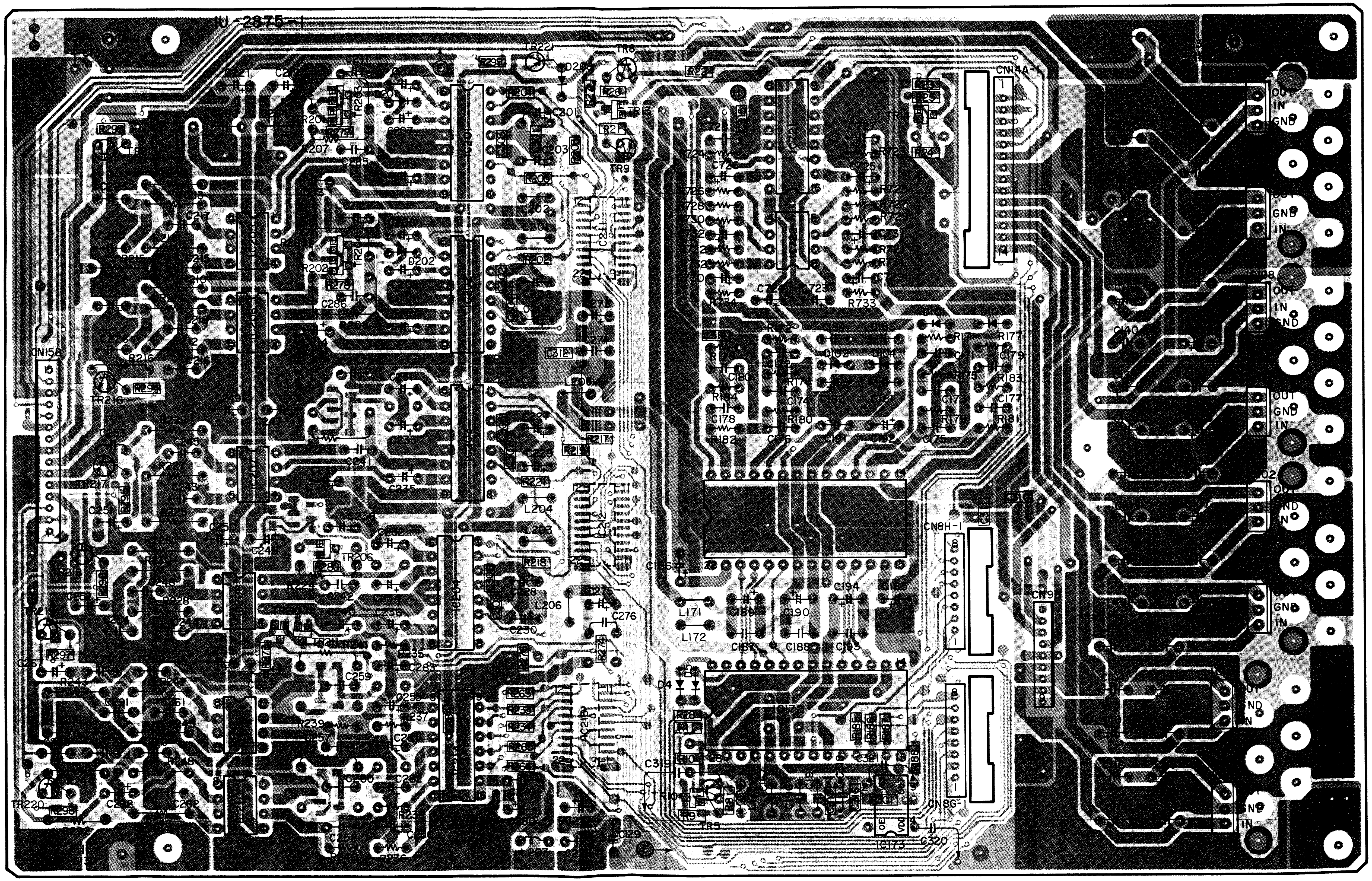
1U-2874A DISPLAY UNIT ASS'Y


1
2
3
4
5
6
7
8
A
B
C
D
E
1U-2874-3
S101
POWER
S102
AC3RF
S103
TAPE2.M
LD107
STANDBY
TPG3
IC103
S121
CN15A
LD108
DIGITAL
LD109
D.LOCK
LD110
HOME.C
LD111
OVER.L
LD112
LFE
1U-2874-6
JK711
CN1A
IC426
RL403
CN9C
TR407
1U-2874-4
CN14A
CN3B
IC451
IC701
IC404
IC652
TUNER
HIVISION REAR
HIVISION CENTER
JK702
JK701
1U-2874-2
S120
1U-2874-1
CN29A
CN12C
CN6B
CN10E
FL101
IC102
IC101
CN15A
LD105
LD103
LD101
LD106
LD104
LD102
1U-2874-5
LD124
CN10E
SURROUND MODE
DSP.SIMU
S116
5CH.ST
S115
WIDE.S
S114
MONO
S113
HOME.C
S112
DOLBY.S
S111
STEREO
S110
DIRECT
S109
S117
SOURCE
S118
MODE
S119
UP
S108
DOWN
TUNING
S107
SHIFT
S106
A/D
S105
UP
S104
DOWN
INPUT

1U-2874A	
1	FLD Unit
2	Master Volume Unit
3	Function SW. Unit
4	Hi-Vision Unit
5	Volume LED Unit
6	Headphone Unit

1U-2875A DIGITAL UNIT ASS'Y

1U-2875A	
1	AD/DA Unit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D
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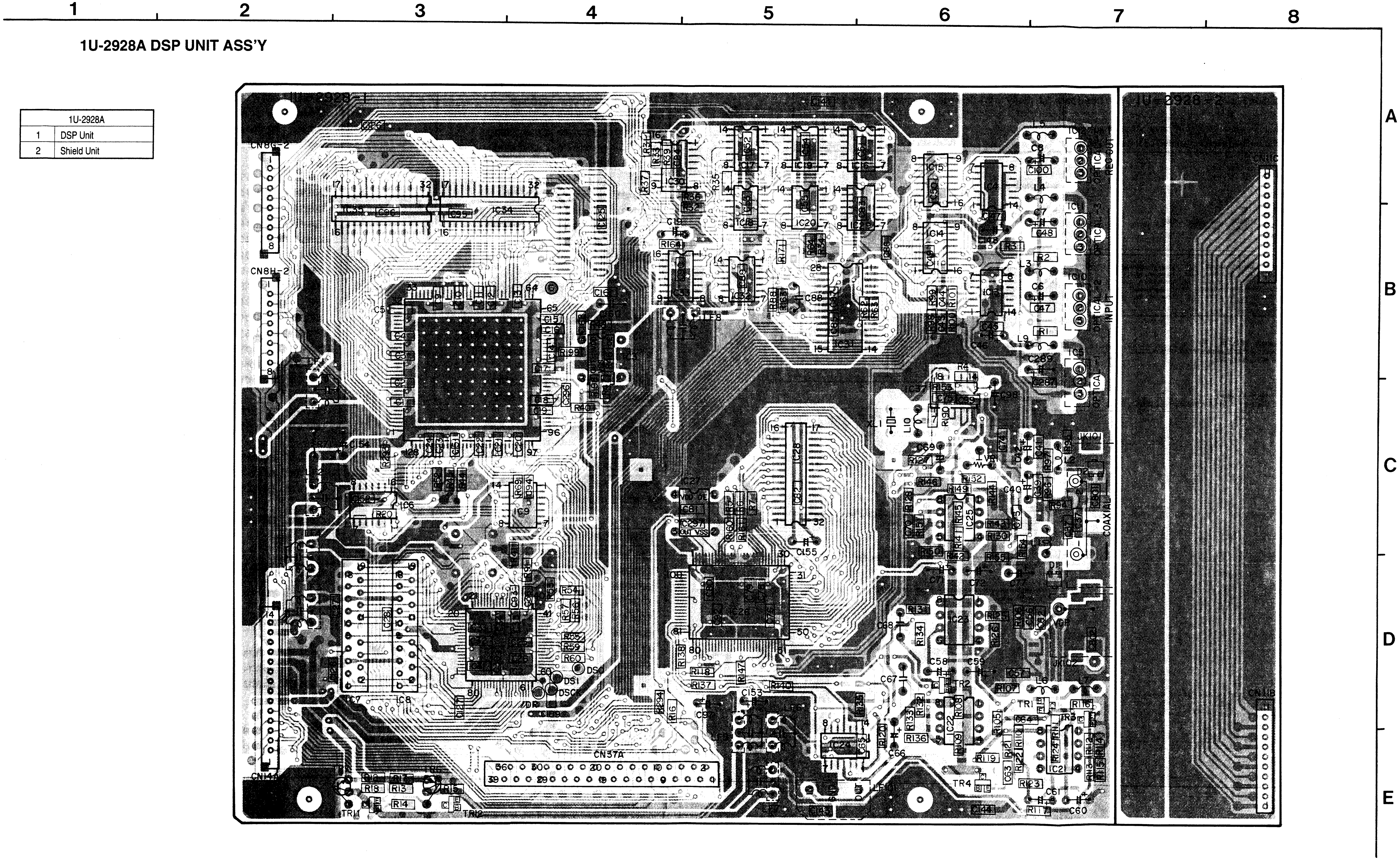
1U-2875-1
CN14A-1
CN15
CN8H-1
CN8G-1
CN9
TR221
TR6
TR9
TR216
TR217
TR219
TR220
TR206
TR5
D202
D4
L171
L172
L204
L206
C312
C319
C320
IC173
R733
OUT
IN
GND

1U-2928A DSP UNIT ASS'Y

1U-2928A	
1	DSP Unit
2	Shield Unit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1U-2928-1
1U-2928-2
CN8G-2
CN8H-2
CN14A
CN37A
CN11C
CN11B
IC35
IC34
IC30
IC17
IC19
IC16
IC18
IC20
IC21
IC15
IC14
IC13
IC32
IC31
IC28
IC29
IC9
IC6
IC7
IC8
IC25
IC23
IC22
IC24
IC21
IC5
IC10
IC11
IC12
XL1
L10
VR1
JK101
JK102
TR1
TR2
TR3
TR4
TR11
TR12
DS1
DSC
COAXIAL
OPTICAL INPUT
OPTICAL REC OUT
LF1

NOTE FOR PARTS LIST

- Part indicated with the mark " ◉ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol ⚠ ▨ have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

• Resistors

Ex.:

RN	14K	2E	182	G	FR
Type	Shape and performance	Power	Resistance	Allowable error	Others

Type	Power	Allowable error	Others
RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

*** Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
- 2 : Indicates number of zeros after effective number.
- 1 8 : 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
- 2 : 1-digit effective number.
- 1 R : 2-digit effective number, decimal point indicated by R.

• Units: ohm

• Capacitors

Ex.:

CE	04W	1H	2R2	M	BP
Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others

Type	Dielectric strength	Allowable error	Others
CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80% −20%	U : UL part
CP : Oil	2A : 100V		C : CSA part
CM : Mica	2B : 125V	P : +100% −0%	W : UL-CSA type
CF : Metallized	2C : 160V		F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

*** Capacity (electrolyte only)**

2 2 2 ⇒ 2200µF
- 2 : Indicates number of zeros after effective number.
- 2 2 : 2-digit effective number.

• Units: µF.

2 R 2 ⇒ 2.2µF
- 2 : 1-digit effective number.
- 2 R : 2-digit effective number, decimal point indicated by R.

• Units: µF.

*** Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF = 0.0022µF
- 2 (More than 2) — Indicates number of zeros after effective number.
- 2 2 : 2-digit effective number.

• Units: µF.

2 2 1 ⇒ 220pF
- 1 (0 or 1) — Indicates number of zeros after effective number.
- 2 2 : 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dieelectric strength value.

PRINTED VIRING BOARD PARTS LIST

1U-2871A AUDIO UNIT Ass'y

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC402,403	262 2219 002	IC TC9274N-002	
IC415,416	262 2214 007	IC LC7536	
IC418,419	263 0609 002	IC NJM2068DDC	
IC420	263 0743 007	IC NJM2082DD	
IC421	263 0609 002	IC NJM2068DDC	
IC422	263 0990 009	IC :*OP275GP	
IC428	263 0609 002	IC NJM2068DDC	
IC429,430	263 0990 009	IC :*OP275GP	
IC431,432	262 2214 007	IC LC7536	
IC433~436	263 0609 002	IC NJM2068DDC	
IC452	263 0757 006	IC :OP271	
IC453~460	263 0609 002	IC NJM2068DDC	
IC701	263 0609 002	IC NJM2068DDC	
TR401	273 0388 906	Transistor 2SC1740S(E)	
TR406	273 0388 906	Transistor 2SC1740S(E)	
TR408	269 0046 906	Transistor DTA114ES	Built in resistor
D401	276 0432 903	Diode 1SS270A	
D406	276 0432 903	Diode 1SS270A	
LD113~123	393 9408 908	LED SEL-4214S	Red
RESISTORS GROUP			
⚠R616	241 2379 974	Carbon 910ohm 1/4W(NB)	RD14B2E911JNBS
⚠R618	241 2379 974	Carbon 910ohm 1/4W(NB)	RD14B2E911JNBS
CAPACITORS GROUP			
C051,052	255 6180 948	Film 15pF/50V	CQ09S1H150J(SMT)
C053,054	255 6180 919	Film 33pF/50V	CQ09S1H330J(SMT)
C055~058	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C059~062	254 4256 739	Electrolytic 47µF/50V	CE04W1H470MC(ARS)
C063~070	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C071~074	253 1181 917	Ceramic 0.022µF/50V	CK45F1H223Z
C075~078	254 4356 027	Electrolytic 22µF/50V	CE04W1H220M(ARS)
C079~082	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C087,088	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C423~426	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C427~440	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C443~446	255 4235 918	Film 100pF/100V	CQ93P2A101J(NH)
C445,446	255 6177 948	Film 100pF/50V	CQ09S1H101J(SMT)
C447~460	253 1179 903	Ceramic 100pF/50V	CK45B1H101K
C473~476	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C477,478	255 6177 980	Film 220pF/50V	CQ09S1H221J(SMT)
C479,480	254 4356 739	Electrolytic 47µF/50V	CE04W1H470MC(ARS)
C483,484	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C487,488	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C489,490	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C491,492	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C493,494	255 6177 980	Film 220pF/50V	CQ09S1H221J(SMT)
C495,496	253 1181 917	Ceramic 0.022µF/50V	CK45F1H223Z
C497,498	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C499	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C500~502	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C503,504	255 6178 934	Film 560pF/50V	CQ09S1H561J(SMT)
C505,506	253 1181 917	Ceramic 0.022µF/50V	CK45F1H223Z
C509~512	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C519,520	255 6178 934	Film 560pF/50V	CQ09S1H561J(SMT)
C525~528	253 9030 989	BC ceramic 0.022µF/25V	CK45=1E223K
C537~540	253 1179 903	Ceramic 100pF/50V	CK45B1H101K
C544,545	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C547	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C549,550	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C573~576	254 4256 739	Electrolytic 47µF/50V	CE04W1H470MC(ARS)
C577~590	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C593~596	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C597~599	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C600~610	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C631~634	253 1179 903	Ceramic 100pF/50V	CK45B1H101K
C701~704	256 1035 910	Metalized cap. 0.22µF/50V	CF93A1H224J
C705,706	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C707,708	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C901,902	254 4313 905	Electrolytic 3.3µF/50V	CE04W1H3R3M(ASF)

OTHERS PARTS GROUP				Q'ty
	—	(P.W.board)		(1)
RL401,402	214 0127 003	Relay (RY-12W)		2
JK402~404	204 8513 007	6 P pin jack (S-GND)		3
JK405	204 8514 006	4 P pin jack (S-GND)		1
JK406,407	204 8518 002	2 P pin jack		2
CN11D	205 0409 015	11P Dip socket		1
CN3B	205 0343 032	3 P connctor base(KR-PH)		1
CN5B	205 0343 058	5 P connctor base(KR-PH)		1
CN7A	205 0343 074	7 P connctor base(KR-PH)		1
CN8A,8F	205 0343 087	8 P connctor base(KR-PH)		2
CN9C	205 0343 090	9 P connctor base(KR-PH)		1
CN14A	205 0375 042	14 P connctor base(KR-PH)		1
CN12D	205 0536 027	12 P connector socket		1

Ref. No.	Part No.	Part Name	Remarke	Q'ty
CN15B	205 0375 055	15 P connector base(KR-PH)		1
CN6A	205 0748 064	JL connector (R)		1
CN25A	205 0736 089	25 P FFC connector base		1
CN11B,C	205 0535 099	11 P connector base		2
CN12C	204 6377 012	12 P KR-DS connector cord		1
A	203 0604 034	1 P contact Ass'y		1
B,C	203 0534 081	1 P SIN connector Ass'y		2
D	203 0604 047	1 P contact Ass'y		1
Z	203 0383 054	1 P SIN connector cord		1
	002 0050 014	5 C ribbon wire Ass'y	for CN11D	1
	002 0052 009	6 C ribbon wire Ass'y	for CN11D	1

1U-2872A VIDEO UNIT Ass'y

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC751~753	263 1018 003	IC MC14577CP	
IC754,755	262 1108 004	IC TC4051BP	
IC756,757	262 0276 005	IC HD14066BP	
IC758	263 1018 003	IC MC14577CP	
IC801,802	263 1018 003	IC MC14577CP	
IC803,804	262 1108 004	IC TC4051BP	
IC805	262 0276 005	IC HD14066BP	
IC806	263 1018 003	IC MC14577CP	
IC807,808	262 1108 004	IC TC4051BP	
IC809,810	263 1018 003	IC MC14577CP	
IC811	262 0276 005	IC HD14066BP	
IC812	263 1018 003	IC MC14577CP	
IC813	262 2067 005	IC MC74HC4053N	
IC814	262 2215 006	IC M35015-***SP	
IC815	263 0682 003	IC NJM2229S	
IC816	263 1018 003	IC MC14577CP	
IC817	263 0755 008	IC CX20106A	
IC901	262 2270 009	IC TMP87CS71F-****	µ-com
IC902	262 2216 102	IC TMP87CP71F-****	µ-com
IC903	263 0809 006	IC NJM7805FA(S)	Regulator +5V
IC904	263 0753 000	IC NJM7809FA(S)	Regulator +9V
IC965	263 0812 006	IC NJM7815FA(S)	Regulator +15V
IC966	263 0561 001	IC NJM7915FA(S)	Regulator -15V
TR801	271 0238 908	Transistor 2SA1037K(S/R)	
TR802	273 0384 900	Transistor 2SC2412K(S)	
TR803	269 0082 902	Transistor DTC114EK	Built in resistor
TR804	273 0384 900	Transistor 2SC2412K(S)	
TR805	273 0198 918	Transistor 2SC1815(BL)	
TR890	269 0083 901	Transistor DTA114EK	Built in resistor
TR901	269 0054 901	Transistor DTC144EK	Built in resistor
TR904,905	269 0054 901	Transistor DTC144EK	Built in resistor
TR908	269 0054 901	Transistor DTC144EK	Built in resistor
TR910	269 0083 901	Transistor DTA114EK	Built in resistor
TR911	273 0384 900	Transistor 2SC2412K(S)	
TR951	269 0047 905	Transistor DTA143EK	Built in resistor
TR952	273 0384 900	Transistor 2SC2412K(S)	
TR953	269 0054 901	Transistor DTC144EK	Built in resistor
TR954	273 0384 900	Transistor 2SC2412K(S)	
TR961	273 0387 004	Transistor 2SC3853(O/P/Y)(Z)	
TR962	274 0138 007	Transistor 2SD1944	
TR963	275 0048 912	FET 2SK381(B)/(C)	N type FET
TR964	271 0131 924	Transistor 2SA988(E/F)	
D801	276 0432 903	Diode 1SS270A	

Ref. No.	Part No.	Part Name	Remarke
D803~806	276 0432 903	Diode 1SS270A	
D807	276 0432 903	Diode 1SS270A	
D890	276 0432 903	Diode 1SS270A	
D901	276 0049 914	Diode 1S2076A	
D902~905	276 0432 903	Diode 1SS270A	
D962~965	276 0548 910	Diode DSM1D2	(Type-3)
D966,967	276 0553 905	Diode 1SR35-200A	
D981~984	276 0548 910	Diode DSM1D2	(Type-3)
ZD901	276 0634 905	Zener diode MTZJ3.3A	3.3V
ZD961	276 0469 905	Zener diode HZS9C-1	9V
ZD962	276 0645 978	Zener diode MTZJ36A	36V
ZD963	276 0644 937	Zener diode MTZJ9.1A	9.1V
RESISTORS GROUP			
R813~820	247 0010 961	Carbon chip 22kohm 1/10W	RM73B--223J
R829	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R830	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R831	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R832	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R833	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R834	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R835	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R836	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R837	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R838	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R839	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J
R840	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J
R841	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R842	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R843	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J
R844	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J
R845	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R846	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R847	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R848	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R849	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R850	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R851	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R852,853	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R854	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R855	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J
R856	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J
R857	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R858	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R859	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--511J
R860	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J

Ref. No.	Part No.	Part Name	Remarke
R862	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
⚠R864	241 2387 908	Carbon film 1ohm 1/4W(NB)	RD14B2E010JNBS
R865	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
⚠R866	241 2387 908	Carbon film 1ohm 1/4W(NB)	RD14B2E010JNBS
R867	247 0002 966	Carbon chip 10ohm 1/10W	RM73B--100J
R868	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R869	247 0008 902	Carbon chip 1.8kohm 1/10W	RM73B--182J
R870	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R871	247 0013 984	Carbon chip 470kohm 1/10W	RM73B--474J
R872	247 0011 902	Carbon chip 33kohm 1/10W	RM73B--333J
R873	247 0006 946	Carbon chip 390ohm 1/10W	RM73B--391J
R874	247 0007 987	Carbon chip 1.5kohm 1/10W	RM73B--152J
R875	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R876	247 0011 957	Carbon chip 51kohm 1/10W	RM73B--513J
R877	247 0009 956	Carbon chip 7.5kohm 1/10W	RM73B--752J
R878	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R879	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R880	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B--822J
R881	247 0007 961	Carbon chip 1.2kohm 1/10W	RM73B--122J
R882	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R883	247 0005 989	Carbon chip 220ohm 1/10W	RM73B--221J
R884	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B--822J
R885	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R886	247 0010 961	Carbon chip 22kohm 1/10W	RM73B--223J
R887,888	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R889	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R890	247 0008 915	Carbon chip 2kohm 1/10W	RM73B--202J
R891	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R892	247 0011 928	Carbon chip 39kohm 1/10W	RM73B--393J
R893	247 0008 915	Carbon chip 2kohm 1/10W	RM73B--202J
R894	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R895	247 0009 930	Carbon chip 6.2kohm 1/10W	RM73B--622J
R896	247 0005 073	Carbon chip 200ohm 1/10W	RM73B--201J
R897	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R898	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R899	247 0012 972	Carbon chip 160kohm 1/10W	RM73B--164J
R900	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R901~904	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R905~908	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R909	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R910~912	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R913~935	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
⚠R936	241 2387 940	Carbon film 4.7ohm 1/4W(NB)	RD14B2E4R7JNBS
R937,938	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R939	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R940	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R941	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R942	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R943	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R944	247 0013 900	Carbon chip 220kohm 1/10W	RM73B--224J

Ref. No.	Part No.	Part Name	Remarke
R945	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R951	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R952	247 0009 914	Carbon chip 5.1kohm 1/10W	RM73B--512J
R953	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R955~957	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R959	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R960	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
⚠R963	241 2387 940	Carbon film 4.7ohm 1/4W(NB)	RD14B2E4R7JNBS
R965	247 0010 958	Carbon chip 20kohm 1/10W	RM73B--203J
R966	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R976~980	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R981,982	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
⚠R983,984	241 2387 908	Carbon film 1ohm 1/4W(NB)	RD14B2E010JNBS
R985	247 0002 966	Carbon chip 10ohm 1/10W	RM73B--100J
R987	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R988	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R989	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R991	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
⚠R992	244 2043 953	Metal oxide 470ohm 1W	RS14B3A471JNBS(S)
R994	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
CAPACITORS GROUP			
C754~759	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C760~763	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C764	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C766,767	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C768,769	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C770	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C772,773	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C792~794	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C804~807	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C808~811	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C812,813	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C814	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C816	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C817	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C819	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C820~823	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C824~827	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C828,829	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C830	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C832	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C833	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C835	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C836	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C837	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C838	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C839	257 0002 947	Ceramic chip 12pF/50V	CC73SL1H120J
C840	257 0002 921	Ceramic chip 10pF/50V	CC73SL1H100D

Ref. No.	Part No.	Part Name	Remarke
C841	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C842	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C843~845	257 0003 946	Ceramic chip 33pF/50V	CC73SL1H330J
C846	257 0009 940	Ceramic chip 3300pF/50V	CK73B1H332K
C847	255 1265 978	Film 0.022µF/50V	CQ93M1H223J(B)
C848	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C849	254 4260 977	Electrolytic 4.7µF/50V	CE04W1H4R7M
C850	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C851	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C852	257 0009 940	Ceramic chip 3300pF/50V	CK73B1H332K
C853	257 0008 941	Ceramic chip 470pF/50V	CK73B1H471K
C854	256 1034 953	Metallized 0.068µF/50V	CF93A1H683J
C855	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C856	257 0005 902	Ceramic chip 150pF/50V	CC73SL1H151J
C857	255 1264 911	Film 1200pF/50V	CQ93M1H122J(B)
C858	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C859	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C860	255 1264 908	Film 1000pF/50V	CQ93M1H102J(B)
C861,862	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C863	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M
C864,865	256 1034 937	Metallized 0.047µF/50V	CF93A1H473J
C866	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C867	256 1034 937	Metallized 0.047µF/50V	CF93A1H473J
C868,869	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C890	257 0008 925	Ceramic chip 330pF/50V	CK73B1H331K
C891	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C892,893	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C894	254 4260 964	Electrolytic 3.3µF/50V	CE04W1H3R3M
C895	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C901,902	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C903	254 4250 783	Electrolytic 3300µF/6.3V	CE04W0J332MC
C904,905	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C906	254 4258 905	Electrolytic 4.7µF/35V	CE04W1V4R7M
C907	256 1034 982	Metallized 0.12µF/50V	CF93A1H124J
C908	254 4250 932	Electrolytic 220µF/6.3V	CE04W0J221M
C923	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C924	254 4258 947	Electrolytic 47µF/35V	CE04W1V470M
C937,938	255 4235 976	Film cap. 0.015µF/100V	CQ93P2A153J(NH)
C939	254 4259 700	Electrolytic 2200µF/35V	CE04W1V222MC
C940	254 4413 009	Electrolytic 2200µF/35V	CE04W1V222M(ARS)
C941	254 4259 700	Electrolytic 2200µF/35V	CE04W1V222MC
C942	254 4413 009	Electrolytic 2200µF/35V	CE04W1V222M(ARS)
C943~946	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C947,948	254 4452 701	Electrolytic 47µF/16V	CE04W1V471MC(ASF)
C949,950	255 4235 976	Film cap. 0.015µF/100V	CQ93P2A153J(NH)
C951,952	254 4259 700	Electrolytic 2200µF/35V	CE04W1V222MC
C953,954	254 4261 743	Electrolytic 330µF/50V	CE04W1H331MC
C955,956	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C957	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C958	256 1034 979	Metallized 0.1µF/50V	CF93A1H104J

1U-2873A POWER SUPPLY UNIT Ass'y

Ref. No.	Part No.	Part Name	Remarke	Q'ty
C971	256 1034 979	Metallized 0.1µF/50V	CF93A1H104J	
C973,974	256 1034 979	Metallized 0.1µF/50V	CF93A1H104J	
C990	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z	
C992	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M	
C993	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M	
C995	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M	
C996	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M	
C997	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M	
C998,999	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z	
OTHERS PARTS GROUP				**Q'ty**
	—	(P.W.board)		(1)
L801	235 0060 963	Inductor 15µH		1
LF901,902	235 0048 008	EMI filter		2
JK751,752	204 8515 005	4 P pin jack(S-GND)		2
JK753	204 8516 004	3 P pin jack(S-GND)		1
JK801~803	204 8415 008	3 P S-terminal(AU)	Gold flash	3
JK804	205 0906 000	1 P S-terminal(AU,SW)	Gold flash	1
JK805	204 8260 004	Mini jack		1
XL801	399 0153 006	Crystal 14.32MHz-12PF		1
XL802	399 0105 009	Resonator CSB503F2		1
XL901,902	399 0191 903	Resonator CST4.00MGW		2
⚠F014,015	206 1015 061	Fuse 2.0 A		2
	513 2585 032	Fuse label	for F014,015	2
	202 0040 909	Fuse clip		4
CN3A	205 0233 032	3 P EH connector base		1
CN5B,5C	205 0343 058	5 P connector base(KR-PH)		2
CN6B	205 0343 061	6 P connector base(KR-PH)		1
CN9B	205 0343 090	9 P connector base(KR-PH)		1
CN10A	205 0375 000	10 P connector base(KR-PH)		1
CN25A	205 0736 089	25 P FFC connector base		1
CN29A	205 0736 034	29 P FFC connector (9603)		1
CN37A	205 0736 092	37 P FFC connector base		1
CN8D,8E	205 0985 005	8 P connector socket(TKC-A)		2
CN8D,8E	205 0986 004	8 P connector plug(TKC-A)		2
CN5C	203 8456 006	5 P PH-SAN connector cord		1

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC001	268 0073 905	IC ICP-N15	IC protector
IC051	263 0990 009	IC :*OP275GP	
IC424	262 2214 007	IC LC7536	
IC425	263 0565 007	IC BA15218	
IC427	263 0565 007	IC BA15218	
IC651	263 0990 009	IC :*OP275GP	
IC969	263 0793 002	IC NJM7806FA(S)	Regulator +6V
IC970	263 0683 002	IC NJM7906FA(S)	Regulator -6V
IC971	263 0793 002	IC NJM7806FA(S)	Regulator +6V
IC972	263 0683 002	IC NJM7906FA(S)	Regulator -6V
IC973	263 0793 002	IC NJM7806FA(S)	Regulator +6V
TR051,052	275 0061 902	FET 2SK184(GR)/(BL)	N type FET
TR055	269 0020 906	Transistor DTC114ES	Built in resistor
TR056	269 0046 003	Transistor DTA114ES	Built in resistor
TR412	273 0388 906	Transistor 2SC1740S(E)	
TR651~656	273 0253 015	Transistor 2SC2878(A/B)	
TR657~660	273 0388 906	Transistor 2SC1740S(E)	
TR965,966	273 0388 906	Transistor 2SC1740S(E)	
TR967	269 0020 906	Transistor DTC114ES	Built in resistor
TR968	269 0046 003	Transistor DTA114ES	Built in resistor
D051,052	276 0432 903	Diode 1SS270A	
D408	276 0432 903	Diode 1SS270A	
D651~654	276 0432 903	Diode 1SS270A	
⚠D961	276 0424 005	Diode 4D4B42(LC1)	Bridge
D968~971	276 0548 910	Diode DSM1D2	type-3
D972~977	276 0553 905	Diode 1SR35-200A	
D978	276 0432 903	Diode 1SS270A	
ZD964	276 0644 911	Zener diode MTZJ7.5A	7.5V
ZD965	276 0637 902	Zener diode MTZJ6.2A	6.2V

Ref. No.	Part No.	Part Name	Remarke
RESISTORS GROUP			
VR651	211 0860 002	Variable resistor 30kohm	
VR652	211 0860 015	Variable resistor 5kohm	
⚠R027	241 2379 974	Carbon film 910ohm 1/4W(NB)	RD14B2E911JNBS
R651~656	241 2420 988	Carbon film 220ohm 1/4W	RD14B2E221J(PSNB)
⚠R663~666	241 2379 974	Carbon film 910ohm 1/4W(NB)	RD14B2E911JNBS
⚠R973	241 2375 978	Carbon film 20ohm 1/4W(NB)	RD14B2E200JNBS
R996~999	241 2420 988	Carbon film 220ohm 1/4W	RD14B2E221J(PSNB)
CAPACITORS GROUP			
C001,002	253 1181 917	Ceramic 0.022μF/50V	CK45F1H223Z
C003,004	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C005~008	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
C009,010	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C011~014	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M
C015,016	253 1179 903	Ceramic 100pF/50V	CK45B1H101K
C017	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C018,019	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
C062	254 4356 001	Electrolytic 10μF/50V	CE04W1H100(ARS)
C065~067	254 4356 001	Electrolytic 10μF/50V	CE04W1H100(ARS)
C071,072	254 4254 938	Electrolytic 47μF/16V	CE04W1C470M
C075,076	255 1264 908	Film 1000pF/50V	CQ93M1H102J(B)
C077,078	256 1035 907	Metalized 0.18μF/50V	CF93A1H184J
C079,080	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C081	255 1265 949	Film 0.012μF/50V	CQ93M1H123J(B)
C083	256 1034 966	Metalized 0.082μF/50V	CF93A1H823J
C085	254 4260 935	Electrolytic 0.47μF/50V	CE04W1HR47M
C087,088	254 4356 739	Electrolytic 47μF/50V	CE04W1H470MC(ARS)
C091~093	255 1264 937	Film 1800pF/50V	CQ93M1H182J(B)
C357	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C651~656	255 6177 948	Film 100pF/50V	CQ09S1H101J(SMT)
C657~662	254 4356 001	Electrolytic 10μF/50V	CE04W1H100(ARS)
C663	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C664	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z
C665,666	254 4356 001	Electrolytic 10μF/50V	CE04W1H100(ARS)
C671,672	254 4254 938	Electrolytic 47μF/16V	CE04W1C470M
C675,676	255 1264 908	Film 1000pF/50V	CQ93M1H102J(B)
C677,678	256 1035 907	Metalized 0.18μF/50V	CF93A1H184J
C679,680	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M
C681,682	255 1265 949	Film 0.012μF/50V	CQ93M1H123J(B)
C683,684	256 1034 966	Metalized 0.082μF/50V	CF93A1H823J
C685,686	254 4260 935	Electrolytic 0.47μF/50V	CE04W1HR47M
C687,688	254 4356 739	Electrolytic 47μF/50V	CE04W1H470MC(ARS)

Ref. No.	Part No.	Part Name	Remarke	
C690,691	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	
C921	255 4232 982	Film cap. 0.0022μF/100V	CQ93P2A222J(NH)	
C922	254 4416 705	Electrolytic 10000μF/25V	CE04W1E103MC	
C961,962	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	
C963,964	254 4257 702	Electrolytic 3300μF/25V	CE04W1E332MC	
C965~972	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	
⚠C977	253 8014 702	Ceramic 0.01μF/400V(AC)	CK45F2GAC103MC	
C978,979	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	
C980	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C981	254 4256 790	Electrolytic 2200μF/25V	CE04W1E222MC	
C982	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M	
C983	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z	
C984	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C986~989	254 4258 947	Electrolytic 47μF/35V	CE04W1V470M	
C991	255 4235 743	Film cap. 0.022μF/100V	CQ93P2A223J(NH)	
C992	255 4232 982	Film cap. 0.0022μF/100V	CQ93P2A222J(NH)	
OTHERS PARTS GROUP				**Q'ty**
	—	(P.W.board)		(1)
⚠F001	206 1015 016	Fuse 1.25 A		1
⚠F008	206 1015 029	Fuse 1 A (T)		1
⚠F011	206 1015 087	Fuse 4.0 A		1
⚠F012,013	206 1015 058	Fuse 1.6 A		2
	513 2585 003	Fuse label	for F008	1
	513 2585 016	Fuse label	for F001	1
	513 2585 029	Fuse label	for F012,013	2
	513 2585 058	Fuse label	for F011	1
	202 0040 909	Fuse clip		10
RL404	214 0127 003	Relay (RY-12W)		1
RL651~654	214 0127 003	Relay (RY-12W)		4
⚠RL961	214 0188 000	Relay (VS-12MBNR-SM2(TV-8))		
⚠PT961	233 6074 009	Power transformer (mini)		1
JK651,652	204 8514 006	4 P pin jack(S-GND)		2
JK961,962	204 8289 001	DC power jack		2
CN2A	205 0581 056	2 P VH connector base		1
CN2B	205 0581 001	2 P VH connector base		1
CN7A	205 0343 074	7 P connector base(KR-PH)		1
CN8A,8F	205 0343 087	8 P connector base(KR-PH)		2

Ref. No.	Part No.	Part Name	Remarke	Q'ty
CN10A	205 0375 000	10 P connector base(KR-PH)		1
CN12D	205 0535 028	12 P connector base		1
CN6A	205 0696 064	JL connector(BT-E)		1
CN3A	205 0233 032	3 P EH connector base		1
	203 0647 017	1 P SIN cord Ass'y		1
	415 0299 000	Capacitor cover		1
	417 0388 043	Radiator	for IC969~972	2
	417 0253 026	Radiator	for IC973	1
	473 3304 015	Bind screw 3x8		5

1U-2874A DISPLAY UNIT Ass'y

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC101	262 1911 000	IC M66313FP	
IC102	262 2035 008	IC MSC1937-03RS	
IC103	499 0150 008	Remocon sensor SBX1610-52	
IC404	262 1853 100	IC NJU7313AL	
IC426	263 0995 004	IC NJM4556AD	
IC451	263 0609 002	IC NJM2068DDC	
IC652	263 0609 002	IC NJM2068DDC	
IC701	263 0609 002	IC NJM2068DDC	
TR101~103	272 0131 901	Transistor 2SB1041(R)	
TR104~113	269 0020 906	Transistor DTC114ES	Built in resistor
TR114	269 0046 003	Transistor DTA114ES	Built in resistor
TR407	273 0388 906	Transistor 2SC1740S(E)	
D407	276 0432 903	Diode 1SS270A	
ZD101~104	276 0637 902	Zener diode MTZJ6.2A	6.2V
LD101~106	393 9434 906	LED SEL1210S	Red
LD107,108	393 9408 903	LED SEL4214S	Red
LD109,110	393 9408 916	LED SEL4414E	Green
LD111,112	393 9408 903	LED SEL4214S	Red
LD124	393 9549 008	LED LB-303VA	
RESISTORS GROUP			
⚠R605,606	244 2051 961	Metal oxide 100ohm 1W	RS14B3A101JNBS(S)
⚠R617	241 2379 974	Carbon film 910ohm 1/4W(NB)	RD14B2E911JNBS
CAPACITORS GROUP			
C101	254 4252 066	Electrolytic 470µF/10V	CE04W1A471M
C102	253 9036 006	BC ceramic 0.1µF/25V	CK45=1E104Z
C103	254 4261 028	Electrolytic 100µF/50V	CE04W1H101M
C104	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C105	254 4250 945	Electrolytic 330µF/6.3V	CE04W0J331M
C106	253 1179 903	Ceramic 100pF/50V	CK45B1H101K
C107~110	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C111	253 1180 921	Ceramic 1000pF/50V	CK45B1H102K
C112	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C120	253 1180 921	Ceramic 1000pF/50V	CK45B1H102K
C421,422	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C441,442	253 1179 903	Ceramic 100pF/50V	CK45B1H101K

1U-2875A DIGITAL UNIT Ass'y

Ref. No.	Part No.	Part Name	Remarke	
C513,514	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C515~518	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M	
C519,520	253 1179 903	Ceramic 100pF/50V	CK45B1H101K	
C529,530	253 9030 086	BC ceramic 0.022μF/25V	CK45=1E223K	
C571,572	254 4254 035	Electrolytic 47μF/16V	CE04W1C470M	
C591,592	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C693,694	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C695	253 1179 903	Ceramic 100pF/50V	CK45B1H101K	
C697	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M	
C699	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M	
C705	253 9036 006	BC ceramic 0.1μF/25V	CK45=1E104Z	
C706	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C753,754	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M	
C755,756	253 1179 903	Ceramic 100pF/50V	CK45B1H101K	
C757,758	254 4254 035	Electrolytic 47μF/16V	CE04W1C470M	
C759,760	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
OTHERS PARTS GROUP				**Q'ty**
	—	(P.W.board)		(1)
L101	235 0060 989	Inductor 120μH		1
S101~119	212 5604 910	Tact switch		19
S120,121	212 0373 000	Rotary encorder-EC16B		2
FL101	393 4156 001	FLD FIP16FM7R		1
JK701	204 8517 003	1 P pin jack(S-GND)		1
JK702	204 9529 004	4 P pin jack(SW)		1
JK711	204 8217 031	Headphone jack (BL(AU))		1
RL403	214 0127 003	Relay (RY-12W)		1
CN3B	205 0343 032	3 P connector base(KR-PH)		1
CN14A	205 0375 042	14 P connector base(KR-PH)		1
CN6B	205 0355 062	6 P KR connector base(L)		1
CN9C	205 0343 090	9 P connector base(KR-PH)		1
CN12C	205 0480 021	12 P KR connector base(L)		1
CN15A	205 0375 055	15 P connector base(KR-PH)		1
CN29A	205 0702 042	29 P FFC connector base(L)		1
CN10E	205 0985 018	10 P connector socket(TKC-A)		1
CN10E	205 0986 017	10 P connector PLUG(TKC-A)		1
CN15A	204 6335 025	15 P KR-DA connector cord		1
CN1A	203 0648 003	1 P SIN cord Ass'y		1
	203 0526 044	1 P contact Ass'y		1

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC101~105	263 0809 006	IC NJM7805FA(S)	Regulator +5V
IC106	263 0554 005	IC NJM7905FA(S)	Regulator -5V
IC107	263 0809 006	IC NJM7805FA(S)	Regulator +5V
IC108	263 0554 005	IC NJM7905FA(S)	Regulator -5V
IC171	262 2208 000	IC PCM1760P-L	
IC172	262 2209 009	IC DF1760P	
IC173	399 0300 008	IC SG-531PH(12.288 MHz)	
IC201~204	262 1837 032	IC PCM1702P-L	
IC205~207	263 0680 005	IC NJM5532DD	
IC208~210	263 0594 007	IC NJM2068DAC	
IC211~213	262 2210 904	IC SM5841HS	
IC214	262 2145 008	IC PCM69AP	
IC721	262 2031 002	IC TC9299P	
IC722	263 0594 007	IC NJM2068DAC	
TR005	272 0131 901	Transistor 2SB1041(R)	
TR008	272 0131 901	Transistor 2SB1041(R)	
TR009	274 0169 908	Transistor 2SD1292(R)	
TR010	273 0384 900	Transistor 2SC2412K(S)	
TR013	271 0238 908	Transistor 2SA1037K(S/R)	
TR014	273 0384 900	Transistor 2SC2412K(S)	
TR201~204	275 0094 908	FET 2SK209(GR)	N type FET
TR210	269 0047 905	Transistor DTA143EK	Built in resistor
TR211	269 0054 901	Transistor DTC144EK	Built in resistor
TR215~220	273 0253 918	Transistor 2SC2878(A/B)	
TR221	269 0083 901	Transistor DTA114EK	Built in resistor
D004,005	276 0432 903	Diode 1SS270A	
D101~104	276 0432 903	Diode 1SS270A	
D201,202	276 0432 903	Diode 1SS270A	
D208	276 0432 903	Diode 1SS270A	
RESISTORS GROUP			
R008	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R009	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B--822J
R010,011	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R021	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R022	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R023~028	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R185~187	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J

Ref. No.	Part No.	Part Name	Remarke
R188	247 1018 904	Carbon chip 0ohm 1/8W	RM73B2B0R0K
R201~203	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R205	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R207,208	241 2424 939	Carbon film 6.2kohm 1/4W	RD14B2E622J(PSNB)
R217~219	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R221	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R233,234	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R263~265	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R267,268	241 2423 079	Carbon film 3.6kohm 1/4W	RD14B2E362J(PSNB)
R273,274	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R277,278	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R293~298	247 0008 960	Carbon chip 3.3kohm 1/10W	RM73B--332J
R299	247 0010 958	Carbon chip 20kohm 1/10W	RM73B--203J
R300,301	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
CAPACITORS GROUP			
C101	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C102,103	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C104,105	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C106,107	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C108,109	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C110,111	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C112,113	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C114,115	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C116~118	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C119~122	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C129~133	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C134,135	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C136,137	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C138,139	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C140	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C145,146	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C171~174	255 1264 911	Film 1200pF/50V	CQ93M1H122J(B)
C175,176	255 4200 985	Film 220pF/50V	CQ93P1H221J
C177~180	255 1264 911	Film 1200pF/50V	CQ93M1H122J(B)
C181,182	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C183,184	253 9036 006	BC ceramic 0.1µF/25V	CK45=1E104Z
C185,186	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C187,188	253 9036 006	BC ceramic 0.1µF/25V	CK45=1E104Z
C189~192	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C193	253 9036 006	BC ceramic 0.1µF/25V	CK45=1E104Z
C194	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C195,196	253 9036 006	BC ceramic 0.1µF/25V	CK45=1E104Z
C197	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C201~204	254 4260 977	Electrolytic 4.7µF/50V	CE04W1H4R7M
C205,206	254 4254 019	Electrolytic 22µF/16V	CE04W1C220M

Ref. No.	Part No.	Part Name	Remarke
C207,208	254 4252 037	Electrolytic 100µF/10V	CE04W1A101M
C209,210	254 4356 739	Electrolytic 47µF/50V	CE04W1H470MC(ARS)
C211~214	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C215,216	255 4201 926	Film 330pF/50V	CQ93P1H331J
C217,218	255 4202 925	Film 820pF/50V	CQ93P1H821J
C219	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C221	254 4356 001	Electrolytic 10µF/50V	CE04W1H100(ARS)
C223,224	254 4356 739	Electrolytic 47µF/50V	CE04W1H470MC(ARS)
C225,226	255 1265 004	Film 6800pF/50V	CQ93M1H682J(B)
C227~230	254 4260 977	Electrolytic 4.7µF/50V	CE04W1H4R7M
C231,232	254 4254 019	Electrolytic 22µF/16V	CE04W1C220M
C233,234	254 4252 037	Electrolytic 100µF/10V	CE04W1A101M
C235,236	254 4254 035	Electrolytic 47µF/16V	CE04W1C470M
C237~240	254 4260 977	Electrolytic 4.7µF/50V	CE04W1H4R7M
C241,242	255 4200 901	Film 100pF/50V	CQ93P1H101J
C243	255 4201 926	Film 330pF/50V	CQ93P1H331J
C244	256 1034 937	Metalized 0.047µF/50V	CF93A1H473J
C245	255 4202 925	Film 820pF/50V	CQ93P1H821J
C246	256 1034 979	Metalized 0.1µF/50V	CF93A1H104J
C247~250	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C251,252	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C253,254	255 1265 004	Film 6800pF/50V	CQ93M1H682J(B)
C255,256	254 4252 037	Electrolytic 100µF/10V	CE04W1A101M
C257~260	255 4200 901	Film 100pF/50V	CQ93P1H101J
C261,262	255 4201 926	Film 330pF/50V	CQ93P1H331J
C263	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C264	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C265	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C266	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C267,268	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C269,270	255 4202 925	Film 820pF/50V	CQ93P1H821J
C271,272	255 1265 004	Film 6800pF/50V	CQ93M1H682J(B)
C273	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C274	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C275	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C276	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C277	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C278,279	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z
C280	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C281,282	254 4252 037	Electrolytic 100µF/10V	CE04W1A101M
C283	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C284	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C285,286	255 4235 918	Film 100pF/100V	CQ93P2A101J(NH)
C291,292	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C301~308	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C310~312	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C314,315	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C316	257 0008 983	Ceramic chip 100pF/50V	CK73B1H102K
C317	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C318	256 1034 979	Metalized 0.1µF/50V	CF93A1H104J

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Ref. No.	Part No.	Part Name	Remarke	
C319,320	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z	
C321	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J	
C723,724	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M	
C725,726	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M	
C727,728	253 4537 966	Ceramic 47pF/50V	CC45SL1H470J	
C729~732	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M	
OTHERS PARTS GROUP				**Q'ty**
	—	(P.W.board)		(1)
L173	235 0060 918	Inductor 4.7µH		1
L207	235 0060 918	Inductor 4.7µH		1
CN9B	205 0343 090	9 P connector base(KR-PH)		1
CN15B	205 0375 055	15 P connector base(KR-PH)		1
CN14A	205 0985 021	14 P connector socket(TKC-A)		1
CN8G,H	205 0985 005	8 P connector socket (TKC-A)		2
E	205 1005 007	1 P terminal		1
F	203 0647 004	1 P SIN cord Ass'y		1
	203 0648 003	1 P SIN cord Ass'y		2
	417 0532 006	Radiator	for IC102,103, 107,108	2
	473 7002 018	Tapping screw 3x8 (S)		4

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC001	262 2204 004	IC ZR38500	
IC002	262 2205 003	IC DSP56004	
IC003	399 0299 009	IC SG-531PH(33 MHz)	
IC004	262 1673 908	TC74HC04FP	
IC005	269 0097 007	IC GP1F32R	Optical input
IC006	262 1640 902	IC HD74HC14FP	
IC007,008	262 2206 002	IC TC514256BZL-60	
IC009	262 1718 902	IC TC74HC00AF	
IC010,011	269 0097 007	IC GP1F32R	Optical input
IC012	269 0098 006	IC GP1F32T	Optical output
IC013	262 1205 907	IC TC74HCU04AF	
IC014,015	262 2213 901	IC TC74HC151AF	
IC016	262 1638 901	IC TC74HC164AF	
IC017	262 1665 903	IC HD74HC74FP	
IC018	262 2217 004	IC TC74HC7266AF	
IC019	262 1638 901	IC TC74HC164AF	
IC020	262 1673 908	IC HD74HC04FP	
IC021	263 1018 003	IC MC14577CP	
IC022	263 0118 014	IC NJM4560DD	
IC023	263 1019 002	IC MAX903CPA	
IC024	262 1205 907	IC TC74HCU04AF	
IC025	263 0118 014	IC NJM4560DD	
IC026	262 2211 000	IC PD4606A	
IC027	399 0298 000	IC SG-531PH(46.08 MHz)	
IC028	262 2207 004	IC TC55329AJ-35	
IC029	262 1665 903	IC HD74HC74FP	
IC030	262 1641 901	IC HD74HC157FP	
IC031	262 2212 902	IC CS8412CS	
IC032	262 1718 902	IC TC74HC00AF	
IC033	262 1348 903	IC TC74HC123AF	
IC034,035	262 2207 001	IC TC55329AJ-35	
IC037	262 1205 907	IC TC74HCU04AF	
TR001	273 0384 900	Transistor 2SC2412K(S)	
TR002	269 0119 901	Transistor DTA124EK	Built in resistor
TR003	273 0384 900	Transistor 2SC2412K(S)	
TR004	271 0238 908	Transistor 2SA1037K(S/R)	
TR006	272 0131 901	Transistor 2SB1041(R)	
TR007	274 0169 908	Transistor 2SD1292(R)	
TR011	271 0238 908	Transistor 2SA1037K(S/R)	
TR012	273 0384 900	Transistor 2SC2412K(S)	
D001~003	276 0438 910	Diode MA151A	
CD001	276 0663 905	Varipico KV1851-TL	
LF101	261 0149 003	Composite SBP-4930	

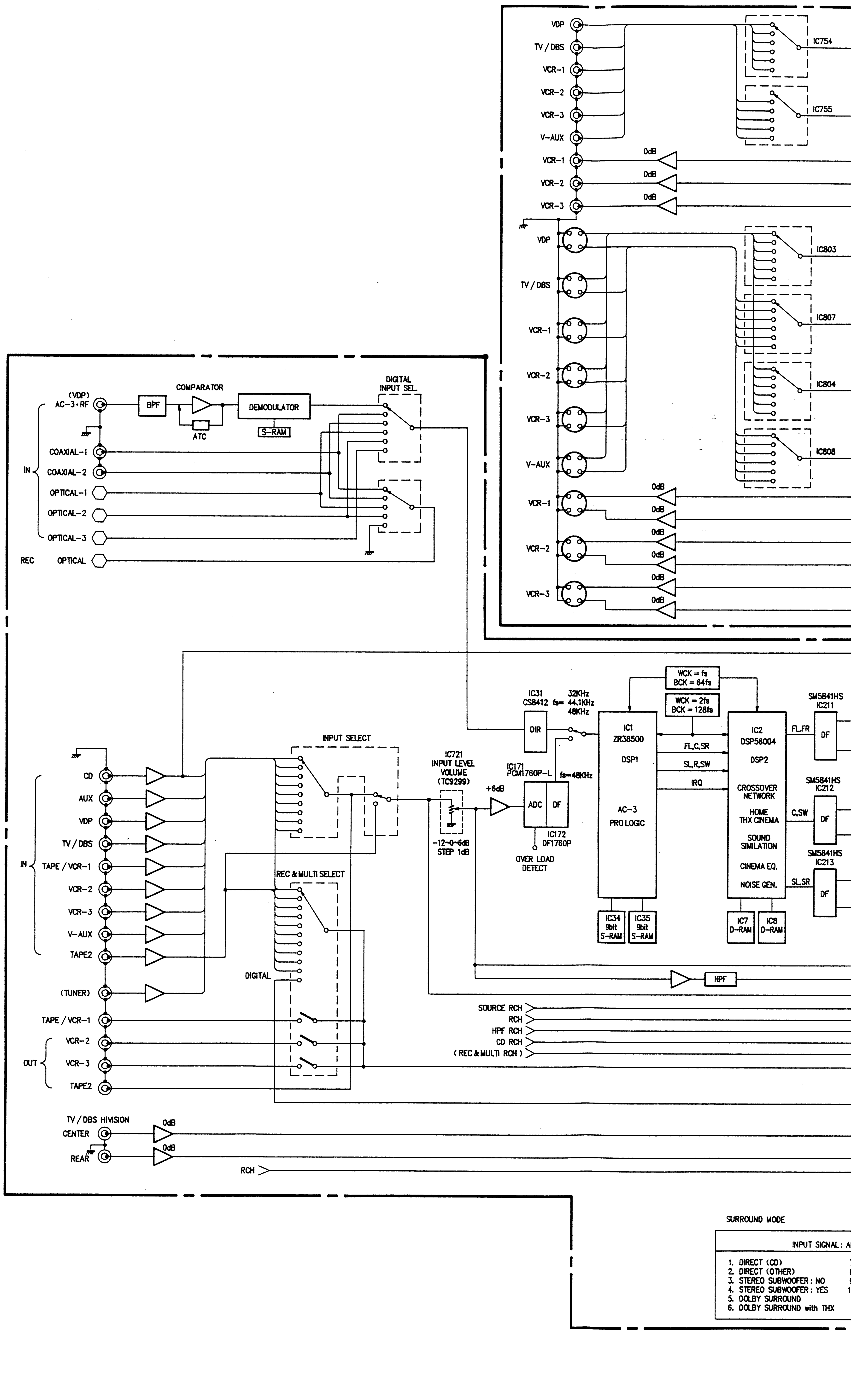
Ref. No.	Part No.	Part Name	Remarke
RESISTORS GROUP (Not included carbon film ±5% 1/4W)			
VR001	211 6093 996	Semi fixed resistor 2.2kohm	V06PB222
R001~003	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R004	247 0014 967	Carbon chip 1 Mohm 1/10W	RM73B--105J
R005~007	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R012	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R013	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R014~017	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R018	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R020	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R031	247 0006 904	Carbon chip 270ohm 1/10W	RM73B--271J
R032~037	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R039	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R040	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R041	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R044,045	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R046~048	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R052	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R053~057	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R059,060	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R061~064	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
⚠R071	244 2043 953	Metal oxide 470ohm 1W	RS14B3A471JNB(S)
R091	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R094,095	247 0004 977	Carbon chip 75ohm 1/10W	RM73B--750J
R096,097	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R098,099	247 0008 928	Carbon chip 2.2kohm 1/10W	RM73B--222J
R100,101	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R105	247 0006 975	Carbon chip 510ohm 1/10W	RM73B--510J
R106	247 0004 980	Carbon chip 82ohm 1/10W	RM73B--820J
R107~109	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R110,111	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R112	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R113	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R114	247 0005 947	Carbon chip 150ohm 1/10W	RM73B--151J
R115	247 0008 928	Carbon chip 2.2kohm 1/10W	RM73B--222J
R116	247 0006 920	Carbon chip 330ohm 1/10W	RM73B--331J
R117	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R118	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R119,120	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R121	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R122,123	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R124	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R125,126	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R127	247 0011 986	Carbon chip 68kohm 1/10W	RM73B--683J
R128	247 0008 928	Carbon chip 2.2kohm 1/10W	RM73B--222J
R130	247 0008 928	Carbon chip 2.2kohm 1/10W	RM73B--222J
R131	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
R132	247 0009 956	Carbon chip 7.5kohm 1/10W	RM73B--752J
R133,134	247 0013 900	Carbon chip 220kohm 1/10W	RM73B--224J

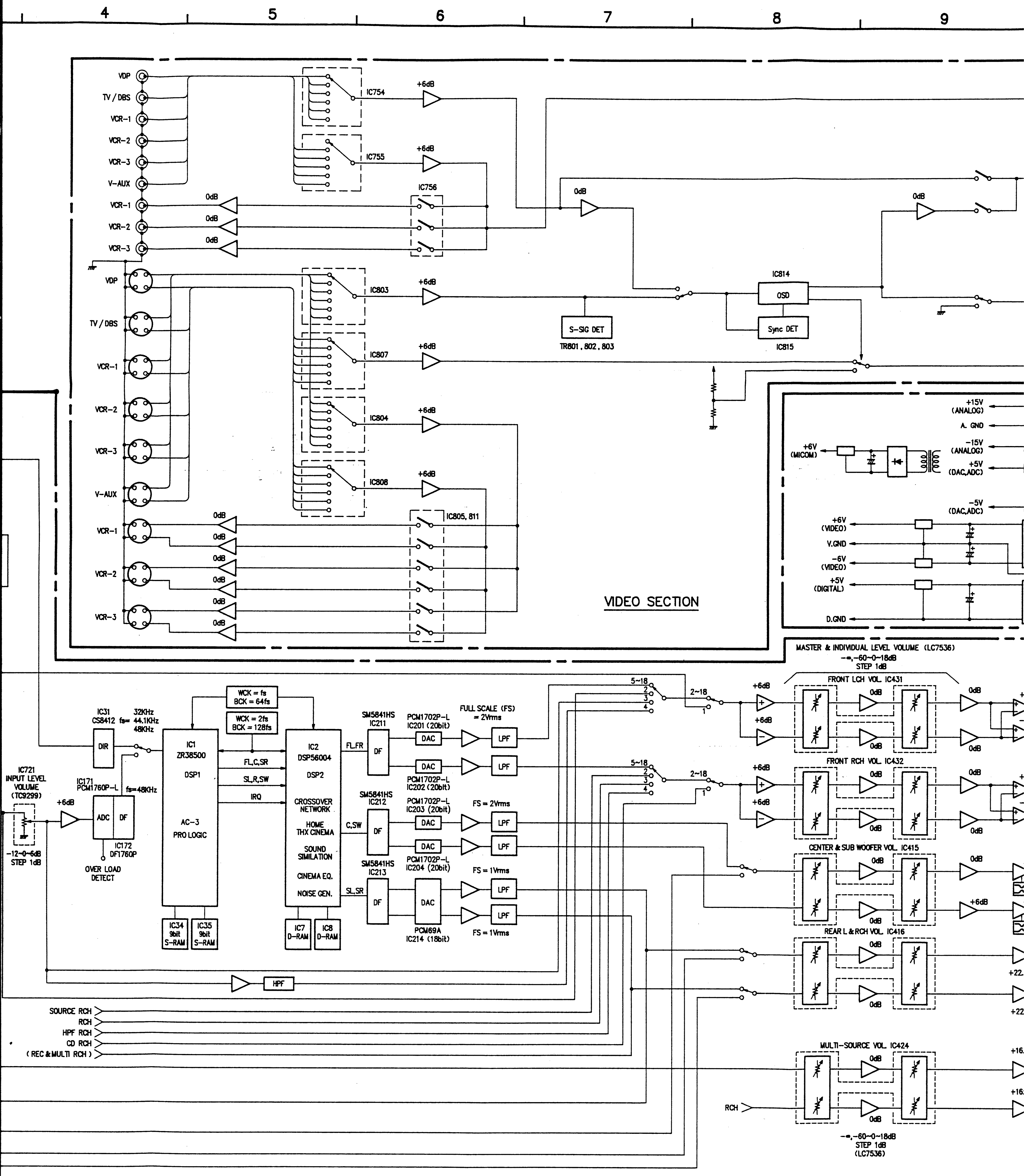
Ref. No.	Part No.	Part Name	Remarke
R135,136	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R137	247 0004 964	Carbon chip 68ohm 1/10W	RM73B--680J
R138	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R140	247 0013 900	Carbon chip 220kohm 1/10W	RM73B--224J
R141	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R142	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R143	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R144	247 0005 921	Carbon chip 120ohm 1/10W	RM73B--121J
R145	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R146	247 0010 961	Carbon chip 22kohm 1/10W	RM73B--223J
R147	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R149~151	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R152	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R153	247 0006 962	Carbon chip 470ohm 1/10W	RM73B--471J
R154,155	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R160,161	247 0009 985	Carbon chip 10kohm 1/10W	RM73B--103J
R163	247 0007 945	Carbon chip 1kohm 1/10W	RM73B--102J
R164	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R169	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R171	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R190	247 0010 929	Carbon chip 15kohm 1/10W	RM73B--153J
R198	247 0004 922	Carbon chip 47ohm 1/10W	RM73B--470J
R199	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
R293	247 0011 944	Carbon chip 47kohm 1/10W	RM73B--473J
R294	247 0005 905	Carbon chip 100ohm 1/10W	RM73B--101J
(C802)	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
CAPACITORS GROUP			
C001~005	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C006~008	254 4254 035	Electrolytic 47µF/16V	CE04W1C470M
C009~026	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C027,028	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C030~036	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C037,038	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C039	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C040	254 4256 020	Electrolytic 33µF/25V	CE04W1E330M
C041	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C042	254 4256 020	Electrolytic 33µF/25V	CE04W1E330M
C043,044	257 0003 904	Ceramic chip 22pF/50V	CC73SL1H220J
C045	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C046	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C047,048	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C049~055	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C056	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J
C057	257 0011 941	Ceramic chip 0.022µF/25V	CK73B1E223K
C058~061	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C062	257 0004 932	Ceramic chip 75pF/50V	CC73SL1H750J

Ref. No.	Part No.	Part Name	Remarke
C063,064	257 0010 900	Ceramic chip 0.01µF/50V	CK73B1H103K
C065	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C066	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C067,068	256 1035 059	Metalized 0.47µF/50V	CF93A1H474J
C069	254 3053 936	Electrolytic 47µF/16V	CE04D1C470MBP (Bipole)
C070	257 0011 996	Ceramic chip 0.1µF/25V	CK73B1E104K
C071,072	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M
C073,074	257 0010 900	Ceramic chip 0.01µF/50V	CK73B1H103K
C075	257 0002 963	Ceramic chip 15pF/50V	CC73SL1H150J
C076	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C077	254 4252 037	Electrolytic 100µF/10V	CE04W1A101M
C078~080	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C081	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C082~086	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C087	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C088	256 1034 937	Metalized 0.047µF/50V	CF93A1H473J
C089,090	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C091	254 4260 058	Electrolytic 2.2µF/50V	CE04W1H2R2M
C092	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C093	257 0008 970	Ceramic chip 820pF/50V	CK73B1H821K
C094~096	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C098	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C099	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C100	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C125~128	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C141	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C143,144	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C147	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C148	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C151	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C152	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C153	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C154	254 4347 748	Electrolytic 1µF/50V	CE04W1H010M(ARSA)
C155	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M
C160	255 4235 743	Film cap. 0.022µF/100V	CQ93P2A223J(NH)
C161	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C162	257 0008 983	Ceramic chip 1000pF/50V	CK73B1H102K
C189	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C287	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C289	254 4254 938	Electrolytic 47µF/16V	CE04W1C470M
C296,297	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z
C801	257 0012 966	Ceramic chip 0.01µF/50V	CK73F1H103Z

Ref. No.	Part No.	Part Name	Remarke	Q'ty
OTHERS PARTS GROUP				
	—	(P.W.board)		(1)
L001,002	235 0060 905	Inductor 2.2µH		2
L003~005	235 0060 918	Inductor 4.7µH		3
L006	235 0060 905	Inductor 2.2µH		1
L007	235 0070 953	:Inductor 68µH		1
L009,010	235 0060 918	Inductor 4.7µH		1
LF001~008	235 0048 008	EMI filter		8
XL001	399 0311 000	Crystal 18.432 MHz		1
JK101	204 8357 027	2 P pin jack		1
JK102	204 8517 003	1 P pin jack(S-GND)		1
CN37A	205 0736 092	37 P FFC connector base		1
CN14A	205 0986 020	14 P connector plug(TKC-A)		1
CN11B,C	205 0536 098	11 P connector socket		2
CN8G,H	205 0986 004	8 P connector plug(TKC-A)		2

BLOCK DIAGRAM

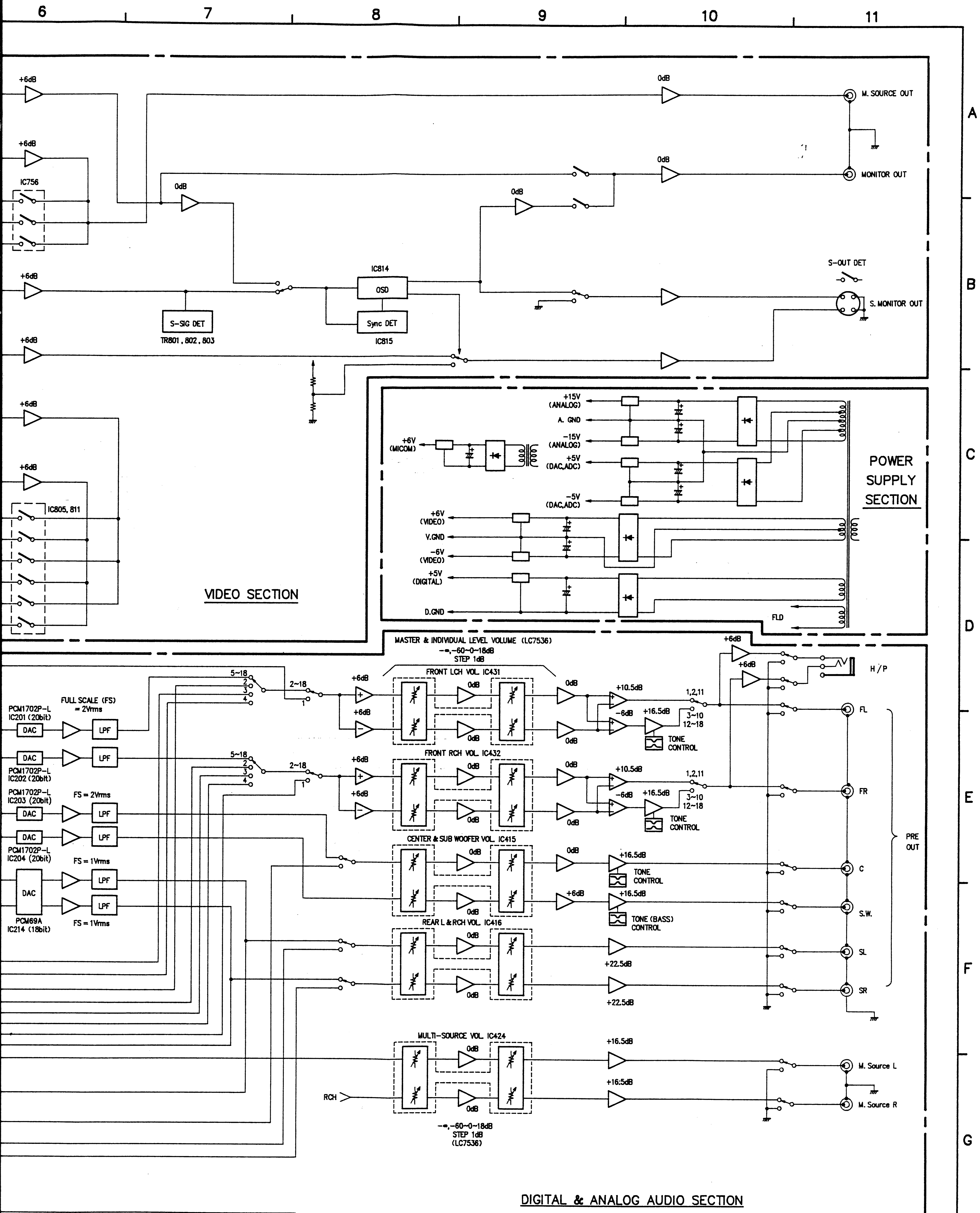

VDP
TV / DBS
VCR-1
VCR-2
VCR-3
V-AUX
VCR-1
VCR-2
VCR-3
0dB
IC754
IC755
IC803
IC807
IC804
IC808
(VDP)
AC-3·RF
BPF
COMPARATOR
ATC
DEMODULATOR
S-RAM
DIGITAL INPUT SEL.
IN
COAXIAL-1
COAXIAL-2
OPTICAL-1
OPTICAL-2
OPTICAL-3
REC
OPTICAL
IC31
CS8412
fs= 32KHz 44.1KHz 48KHz
DIR
WCK = fs
BCK = 64fs
WCK = 2fs
BCK = 128fs
IC1
ZR38500
DSP1
AC-3
PRO LOGIC
FL,C,SR
SL,R,SW
IRQ
IC2
DSP56004
DSP2
CROSSOVER NETWORK
HOME THX CINEMA
SOUND SIMILATION
CINEMA EQ.
NOISE GEN.
FL,FR
C,SW
SL,SR
SM5841HS IC211
SM5841HS IC212
SM5841HS IC213
DF
IC34 9bit S-RAM
IC35 9bit S-RAM
IC7 D-RAM
IC8 D-RAM
IC171
PCM1760P-L
fs=48KHz
ADC
DF
IC172
DF1760P
OVER LOAD DETECT
IC721
INPUT LEVEL VOLUME
(TC9299)
-12-0-6dB
STEP 1dB
+6dB
INPUT SELECT
REC & MULTI SELECT
DIGITAL
CD
AUX
VDP
TV / DBS
TAPE / VCR-1
VCR-2
VCR-3
V-AUX
TAPE2
(TUNER)
OUT
TAPE / VCR-1
VCR-2
VCR-3
TAPE2
HPF
SOURCE RCH
RCH
HPF RCH
CD RCH
(REC & MULTI RCH)
TV / DBS HI-VISION
CENTER
REAR
RCH
SURROUND MODE
INPUT SIGNAL: A
1. DIRECT (CD)
2. DIRECT (OTHER)
3. STEREO SUBWOOFER : NO
4. STEREO SUBWOOFER : YES
5. DOLBY SURROUND
6. DOLBY SURROUND with THX


4
5
6
7
8
9
VDP
TV / DBS
VCR-1
VCR-2
VCR-3
V-AUX
VCR-1
VCR-2
VCR-3
0dB
IC754
+6dB
IC755
+6dB
IC756
0dB
0dB
IC803
+6dB
IC807
+6dB
IC804
+6dB
IC808
+6dB
IC805, 811
IC814
OSD
Sync DET
IC815
S-SIG DET
TR801, 802, 803
VIDEO SECTION
+15V (ANALOG)
A. GND
-15V (ANALOG)
+6V (MICOM)
+5V (DAC,ADC)
-5V (DAC,ADC)
+6V (VIDEO)
V.GND
-6V (VIDEO)
+5V (DIGITAL)
D.GND
MASTER & INDIVIDUAL LEVEL VOLUME (LC7536)
-∞,-60~0~18dB
STEP 1dB
FRONT LCH VOL. IC431
FRONT RCH VOL. IC432
CENTER & SUB WOOFER VOL. IC415
REAR L & RCH VOL. IC416
MULTI-SOURCE VOL. IC424
-∞,-60~0~18dB
STEP 1dB
(LC7536)
5~18
2~18
IC721
INPUT LEVEL VOLUME
(TC9299)
-12~0~6dB
STEP 1dB
IC31
CS8412
fs= 32KHz 44.1KHz 48KHz
DIR
IC171
PCM1760P-L
fs=48KHz
ADC
DF
IC172
DF1760P
OVER LOAD DETECT
WCK = fs
BCK = 64fs
WCK = 2fs
BCK = 128fs
IC1
ZR38500
DSP1
AC-3
PRO LOGIC
FL,C,SR
SL,R,SW
IRQ
IC2
DSP56004
DSP2
CROSSOVER NETWORK
HOME THX CINEMA
SOUND SIMILATION
CINEMA EQ.
NOISE GEN.
IC34 9bit S-RAM
IC35 9bit S-RAM
IC7 D-RAM
IC8 D-RAM
FL,FR
C,SW
SL,SR
SM5841HS IC211
SM5841HS IC212
SM5841HS IC213
DF
DAC
PCM1702P-L IC201 (20bit)
PCM1702P-L IC202 (20bit)
PCM1702P-L IC203 (20bit)
PCM1702P-L IC204 (20bit)
PCM69A IC214 (18bit)
FULL SCALE (FS) = 2Vrms
FS = 2Vrms
FS = 1Vrms
LPF
HPF
SOURCE RCH
RCH
HPF RCH
CD RCH
(REC & MULTI RCH)
+22.
+16.

DIGITAL & ANAL

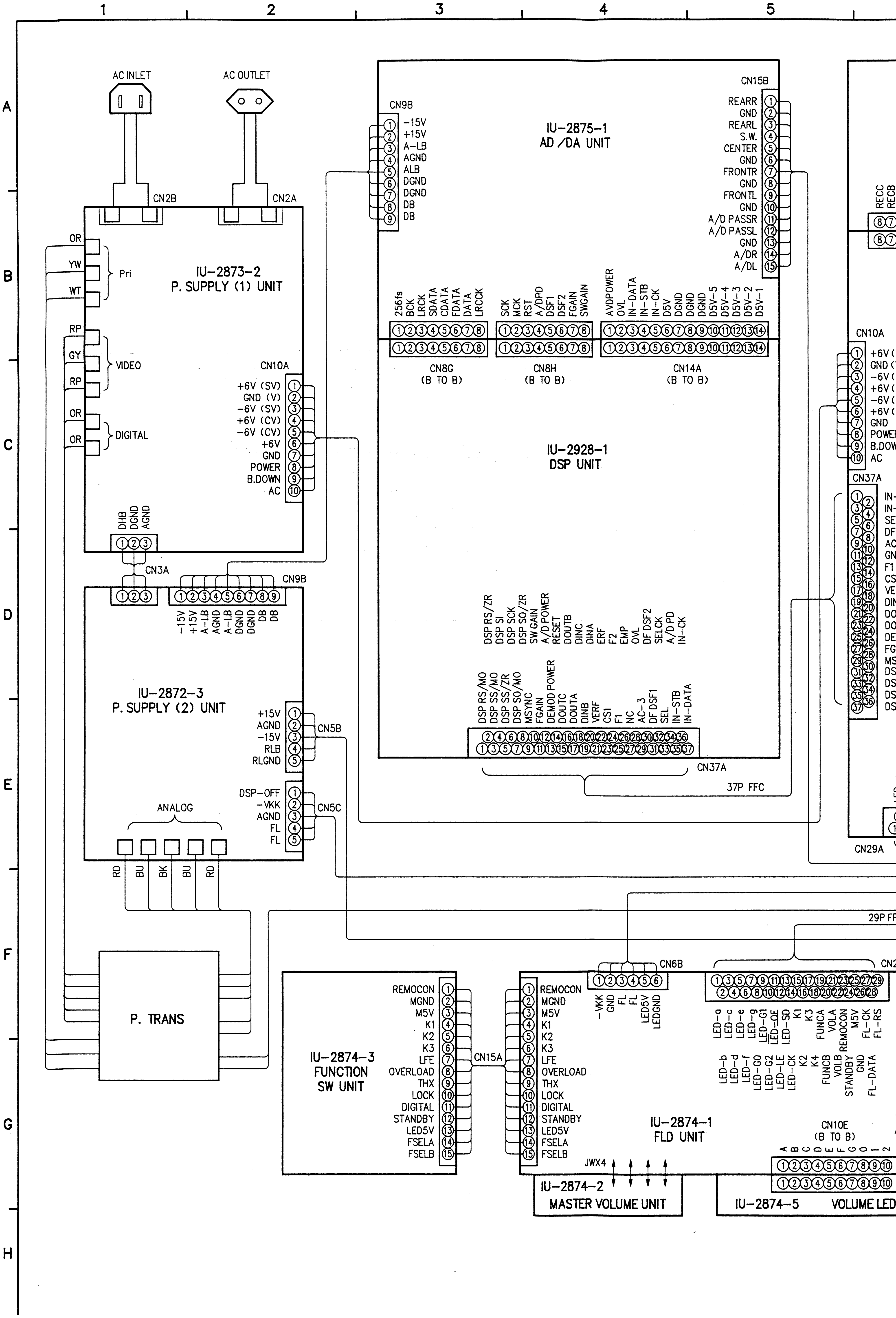
SURROUND MODE

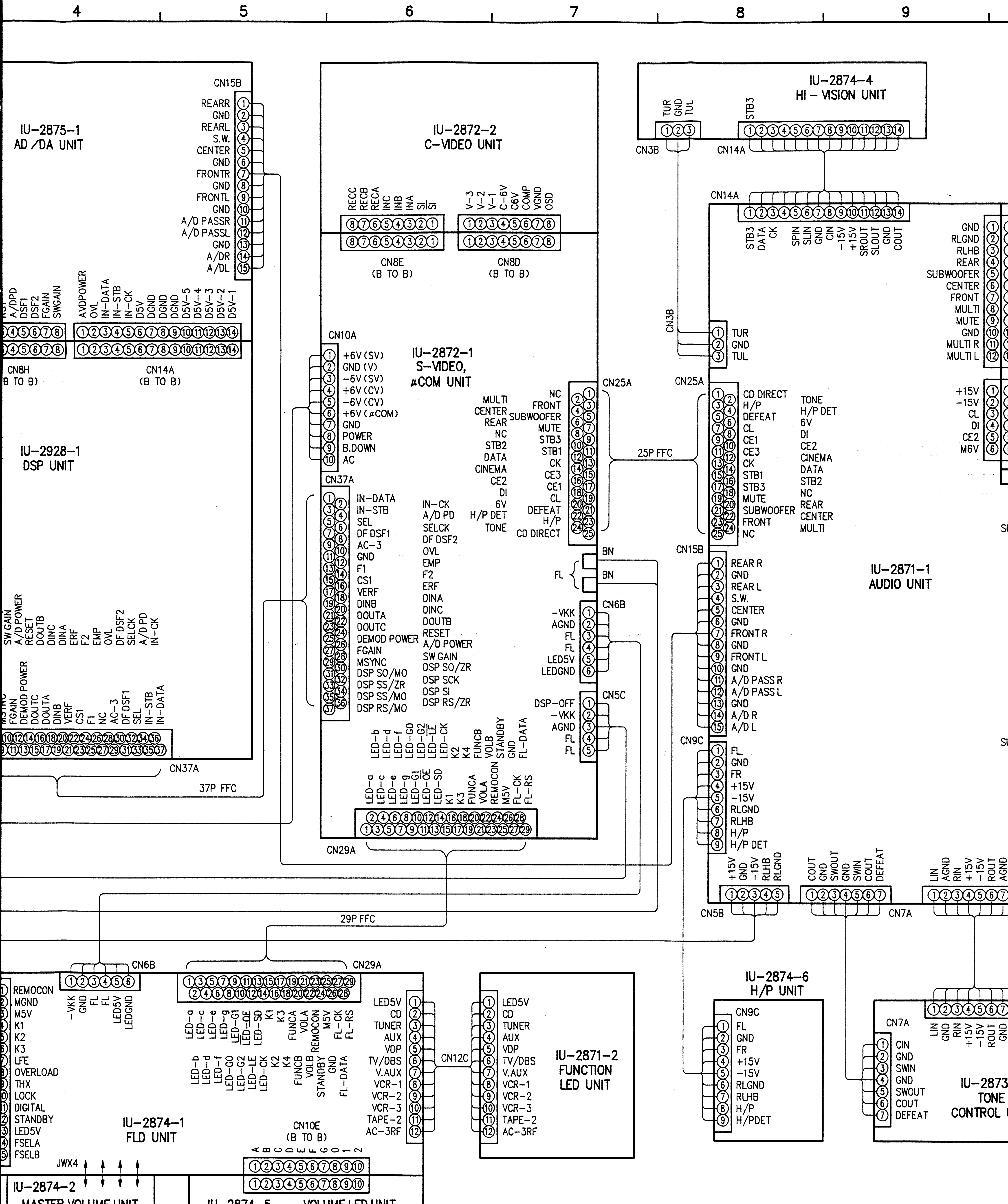
INPUT SIGNAL : ANALOG		INPUT SIGNAL : DIGITAL	
1. DIRECT (CD)	7. WIDE SCREEN	11. DIRECT	15. WIDE SCREEN
2. DIRECT (OTHER)	8. MONO	12. STEREO	16. MONO
3. STEREO SUBWOOFER : NO	9. 5CH STEREO	13. DOLBY SURROUND	17. 5CH STEREO
4. STEREO SUBWOOFER : YES	10. DSP SIMULATION	14. DOLBY SURROUND with THX	18. DSP SIMULATION
5. DOLBY SURROUND			
6. DOLBY SURROUND with THX			

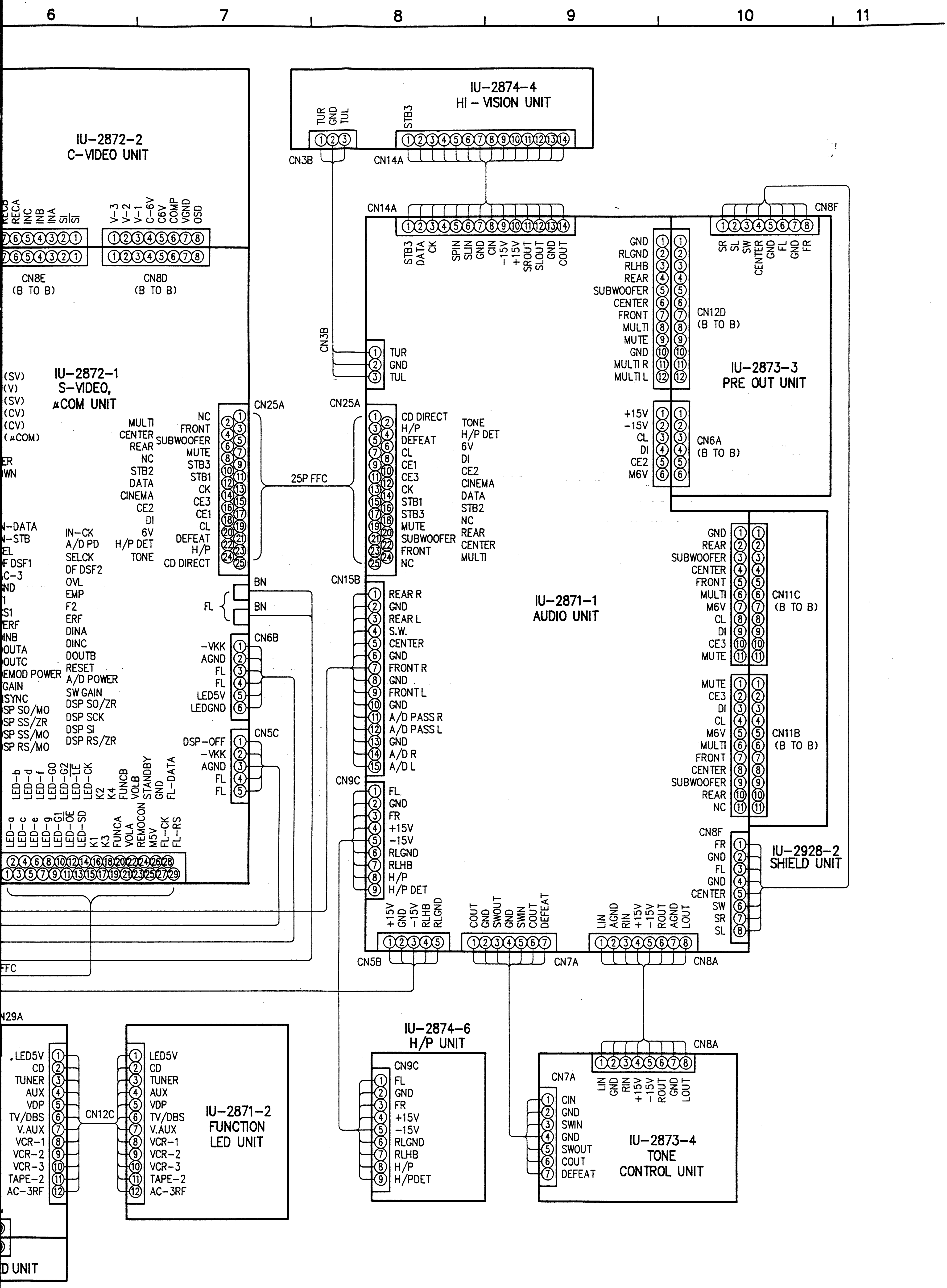

6
7
8
9
10
11
A
B
C
D
E
F
G
H
+6dB
0dB
M. SOURCE OUT
MONITOR OUT
IC756
S-OUT DET
IC814
OSD
Sync DET
IC815
S-SIG DET
TR801, 802, 803
S. MONITOR OUT
+15V (ANALOG)
A. GND
-15V (ANALOG)
+6V (MICOM)
+5V (DAC,ADC)
-5V (DAC,ADC)
+6V (VIDEO)
V.GND
-6V (VIDEO)
+5V (DIGITAL)
D.GND
FLD
POWER SUPPLY SECTION
IC805, 811
VIDEO SECTION
MASTER & INDIVIDUAL LEVEL VOLUME (LC7536)
-∞,-60~0~18dB
STEP 1dB
FRONT LCH VOL. IC431
FRONT RCH VOL. IC432
CENTER & SUB WOOFER VOL. IC415
REAR L & RCH VOL. IC416
MULTI-SOURCE VOL. IC424
5~18
2~18
1,2,11
3~10
12~18
+10.5dB
-6dB
+16.5dB
+22.5dB
TONE CONTROL
TONE (BASS) CONTROL
H/P
FL
FR
C
S.W.
SL
SR
PRE OUT
M. Source L
M. Source R
RCH
PCM1702P-L
IC201 (20bit)
IC202 (20bit)
IC203 (20bit)
IC204 (20bit)
PCM69A
IC214 (18bit)
DAC
LPF
FULL SCALE (FS) = 2Vrms
FS = 2Vrms
FS = 1Vrms
-∞,-60~0~18dB
STEP 1dB
(LC7536)
DIGITAL & ANALOG AUDIO SECTION

NALOG	INPUT SIGNAL: DIGITAL	
7. WIDE SCREEN	11. DIRECT	15. WIDE SCREEN
8. MONO	12. STEREO	16. MONO
9. 5CH STEREO	13. DOLBY SURROUND	17. 5CH STEREO
10.DSP SIMULATION	14. DOLBY SURROUND with THX	18. DSP SIMULATION

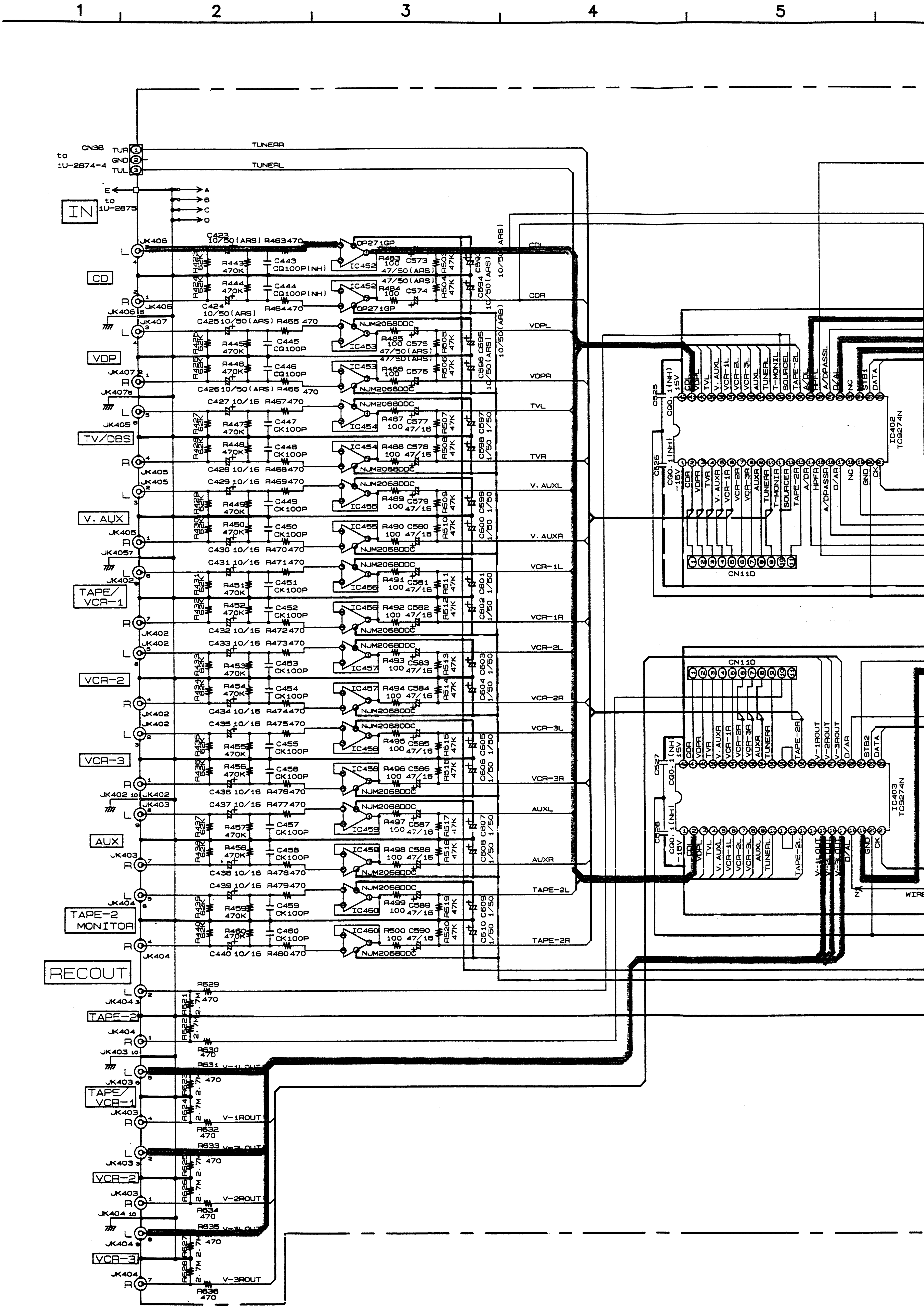
WIRING DIAGRAM

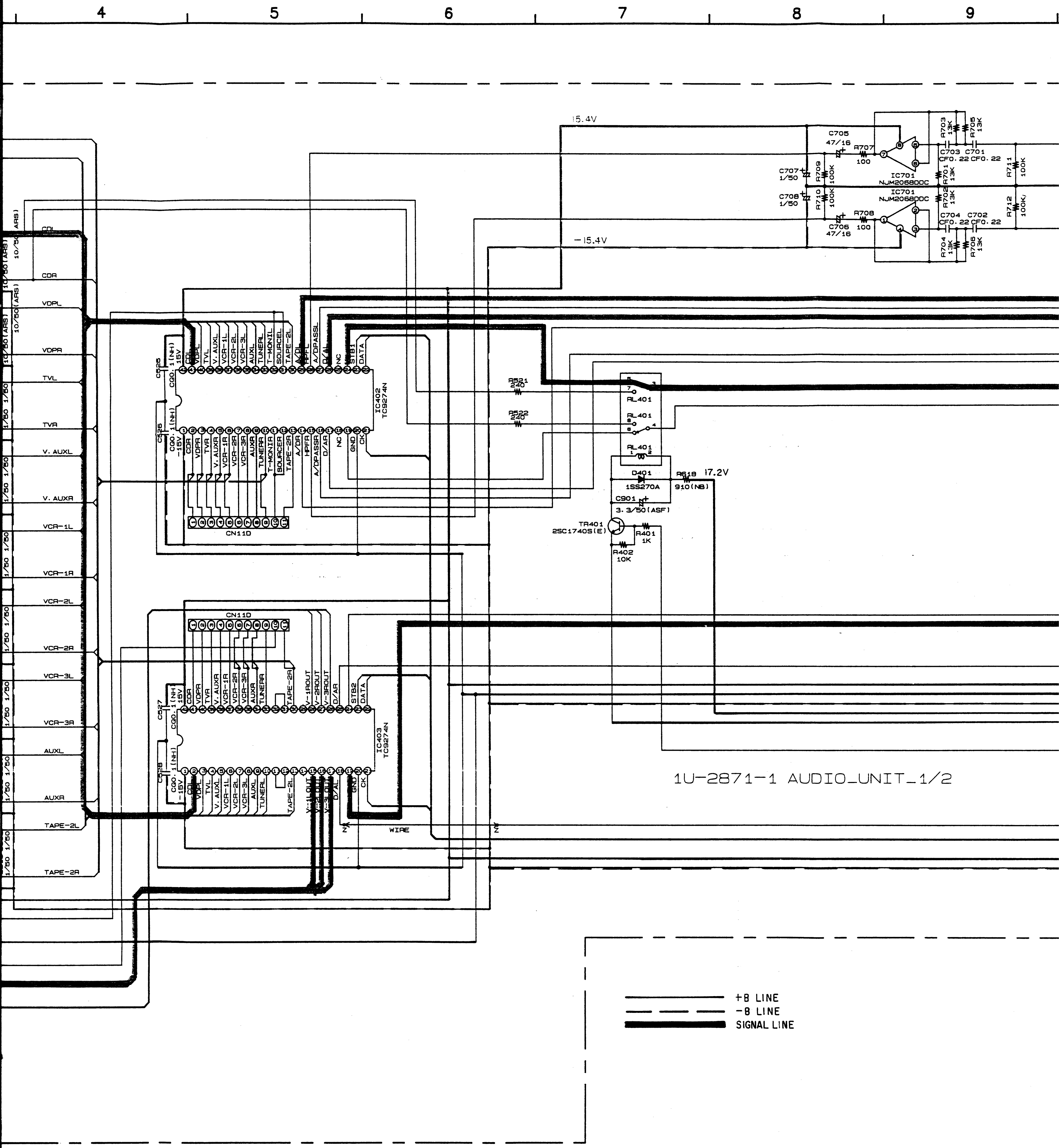

1
2
3
4
5
A
B
C
D
E
F
G
H
AC INLET
AC OUTLET
CN2B
CN2A
IU-2873-2
P. SUPPLY (1) UNIT
OR
YW
WT
Pri
RP
GY
RP
VIDEO
OR
OR
DIGITAL
CN10A
+6V (SV) ①
GND (V) ②
-6V (SV) ③
+6V (CV) ④
-6V (CV) ⑤
+6V ⑥
GND ⑦
POWER ⑧
B.DOWN ⑨
AC ⑩
DHB
DGND
AGND
①②③
CN3A
①②③
CN9B
①②③④⑤⑥⑦⑧⑨
-15V
+15V
A-LB
AGND
A-LB
DGND
DGND
DB
DB
IU-2872-3
P. SUPPLY (2) UNIT
+15V ①
AGND ②
-15V ③
RLB ④
RLGND ⑤
CN5B
DSP-OFF ①
-VKK ②
AGND ③
FL ④
FL ⑤
CN5C
ANALOG
RD
BU
BK
BU
RD
P. TRANS
CN9B
① -15V
② +15V
③ A-LB
④ AGND
⑤ ALB
⑥ DGND
⑦ DGND
⑧ DB
⑨ DB
IU-2875-1
AD /DA UNIT
CN15B
REARR ①
GND ②
REARL ③
S.W. ④
CENTER ⑤
GND ⑥
FRONTR ⑦
GND ⑧
FRONTL ⑨
GND ⑩
A/D PASSR ⑪
A/D PASSL ⑫
GND ⑬
A/DR ⑭
A/DL ⑮
256fs
BCK
LRCK
SDATA
CDATA
FDATA
DATA
LRCCK
SCK
MCK
RST
A/DPD
DSF1
DSF2
FGAIN
SWGAIN
AVDPOWER
OVL
IN-DATA
IN-STB
IN-CK
D5V
DGND
DGND
DGND
D5V-5
D5V-4
D5V-3
D5V-2
D5V-1
①②③④⑤⑥⑦⑧
①②③④⑤⑥⑦⑧
①②③④⑤⑥⑦⑧⑨⑩⑪⑫⑬⑭
CN8G
(B TO B)
CN8H
(B TO B)
CN14A
(B TO B)
IU-2928-1
DSP UNIT
DSP RS/ZR
DSP SI
DSP SCK
DSP SO/ZR
SW GAIN
A/D POWER
RESET
DOUTB
DINC
DINA
ERF
F2
EMP
OVL
DF DSF2
SELCK
A/D PD
IN-CK
DSP RS/MO
DSP SS/MO
DSP SS/ZR
DSP SO/MO
MSYNC
FGAIN
DEMOD POWER
DOUTC
DOUTA
DINB
VERF
CS1
F1
NC
AC-3
DF DSF1
SEL
IN-STB
IN-DATA
②④⑥⑧⑩⑫⑭⑯⑱⑳㉒㉔㉖㉘㉚㉜㉞㊱
①③⑤⑦⑨⑪⑬⑮⑰⑲㉑㉓㉕㉗㉙㉛㉝㉟(37)
CN37A
37P FFC
RECC
RECB
⑧⑦
⑧⑦
CN10A
① +6V
② GND
③ -6V
④ +6V
⑤ -6V
⑥ +6V
⑦ GND
⑧ POWE
⑨ B.DOW
⑩ AC
CN37A
IN-
IN-
SE
DF
AC
GN
F1
CS
VE
DIN
DO
DO
DE
FG
MS
DS
DS
DS
DS
CN29A
29P FF
CN2
IU-2874-3
FUNCTION
SW UNIT
REMOCON ①
MGND ②
M5V ③
K1 ④
K2 ⑤
K3 ⑥
LFE ⑦
OVERLOAD ⑧
THX ⑨
LOCK ⑩
DIGITAL ⑪
STANDBY ⑫
LED5V ⑬
FSELA ⑭
FSELB ⑮
CN15A
① REMOCON
② MGND
③ M5V
④ K1
⑤ K2
⑥ K3
⑦ LFE
⑧ OVERLOAD
⑨ THX
⑩ LOCK
⑪ DIGITAL
⑫ STANDBY
⑬ LED5V
⑭ FSELA
⑮ FSELB
CN6B
①②③④⑤⑥
-VKK
GND
FL
FL
LED5V
LEDGND
①③⑤⑦⑨⑪⑬⑮⑰⑲㉑㉓㉕㉗㉙
②④⑥⑧⑩⑫⑭⑯⑱⑳㉒㉔㉖㉘
LED-a
LED-c
LED-e
LED-g
LED-G1
LED-OE
LED-SD
K1
K3
FUNCA
VOLA
REMOCON
M5V
FL-CK
FL-RS
LED-b
LED-d
LED-f
LED-G0
LED-G2
LED-LE
LED-CK
K2
K4
FUNCB
VOLB
STANDBY
GND
FL-DATA
IU-2874-1
FLD UNIT
CN10E
(B TO B)
A
B
C
D
E
F
G
0
1
2
①②③④⑤⑥⑦⑧⑨⑩
①②③④⑤⑥⑦⑧⑨⑩
JWX4
IU-2874-2
MASTER VOLUME UNIT
IU-2874-5
VOLUME LED


4
5
6
7
8
9
IU-2875-1
AD /DA UNIT
CN15B
REARR
GND
REARL
S.W.
CENTER
GND
FRONTR
GND
FRONTL
GND
A/D PASSR
A/D PASSL
GND
A/DR
A/DL
A/DPD
DSF1
DSF2
FGAIN
SWGAIN
AVDPOWER
OVL
IN-DATA
IN-STB
IN-CK
D5V
DGND
DGND
DGND
D5V-5
D5V-4
D5V-3
D5V-2
D5V-1
CN8H
(B TO B)
CN14A
(B TO B)
IU-2928-1
DSP UNIT
SW GAIN
A/D POWER
RESET
DOUTB
DINC
DINA
ERF
F2
EMP
OVL
DF DSF2
SELCK
A/D PD
IN-CK
MSYNC
DEMOD POWER
DOUTC
DOUTA
DINB
VERF
CS1
F1
NC
AC-3
DF DSF1
SEL
IN-STB
IN-DATA
CN37A
37P FFC
IU-2872-2
C-VIDEO UNIT
RECC
RECB
RECA
INC
INB
INA
SI
SI
V-3
V-2
V-1
C-6V
C6V
COMP
VGND
OSD
CN8E
(B TO B)
CN8D
(B TO B)
CN10A
+6V (SV)
GND (V)
-6V (SV)
+6V (CV)
-6V (CV)
+6V (μCOM)
GND
POWER
B.DOWN
AC
IU-2872-1
S-VIDEO,
μCOM UNIT
CN37A
IN-DATA
IN-STB
SEL
DF DSF1
AC-3
GND
F1
CS1
VERF
DINB
DOUTA
DOUTC
DEMOD POWER
FGAIN
MSYNC
DSP SO/MO
DSP SS/ZR
DSP SS/MO
DSP RS/MO
IN-CK
A/D PD
SELCK
DF DSF2
OVL
EMP
F2
ERF
DINA
DINC
DOUTB
RESET
A/D POWER
SW GAIN
DSP SO/ZR
DSP SCK
DSP SI
DSP RS/ZR
MULTI
CENTER
REAR
NC
STB2
DATA
CINEMA
CE2
DI
6V
H/P DET
TONE
NC
FRONT
SUBWOOFER
MUTE
STB3
STB1
CK
CE3
CE1
CL
DEFEAT
H/P
CD DIRECT
CN25A
25P FFC
BN
BN
FL
CN6B
-VKK
AGND
FL
FL
LED5V
LEDGND
CN5C
DSP-OFF
-VKK
AGND
FL
FL
LED-b
LED-d
LED-f
LED-G0
LED-G2
LED-LE
LED-CK
K2
K4
FUNCB
VOLB
STANDBY
GND
FL-DATA
LED-a
LED-c
LED-e
LED-g
LED-G1
LED-OE
LED-SD
K1
K3
FUNCA
VOLA
REMOCON
M5V
FL-CK
FL-RS
CN29A
29P FFC
IU-2874-4
HI - VISION UNIT
TUR
GND
TUL
STB3
CN3B
CN14A
CN14A
STB3
DATA
CK
SPIN
SLIN
GND
CIN
-15V
+15V
SROUT
SLOUT
GND
COUT
CN3B
TUR
GND
TUL
CN25A
CD DIRECT
H/P
DEFEAT
CL
CE1
CE3
CK
STB1
STB3
MUTE
SUBWOOFER
FRONT
NC
TONE
H/P DET
6V
DI
CE2
CINEMA
DATA
STB2
NC
REAR
CENTER
MULTI
CN15B
REAR R
GND
REAR L
S.W.
CENTER
GND
FRONT R
GND
FRONT L
GND
A/D PASS R
A/D PASS L
GND
A/D R
A/D L
IU-2871-1
AUDIO UNIT
CN9C
FL
GND
FR
+15V
-15V
RLGND
RLHB
H/P
H/P DET
GND
RLGND
RLHB
REAR
SUBWOOFER
CENTER
FRONT
MULTI
MUTE
GND
MULTI R
MULTI L
+15V
-15V
CL
DI
CE2
M6V
+15V
GND
-15V
RLHB
RLGND
CN5B
COUT
GND
SWOUT
GND
SWIN
COUT
DEFEAT
CN7A
LIN
AGND
RIN
+15V
-15V
ROUT
AGND
IU-2874-6
H/P UNIT
CN9C
FL
GND
FR
+15V
-15V
RLGND
RLHB
H/P
H/PDET
CN7A
LIN
GND
RIN
+15V
-15V
ROUT
GND
CIN
GND
SWIN
GND
SWOUT
COUT
DEFEAT
IU-2873
TONE
CONTROL U
CN6B
-VKK
GND
FL
FL
LED5V
LEDGND
REMOCON
MGND
M5V
K1
K2
K3
LFE
OVERLOAD
THX
LOCK
DIGITAL
STANDBY
LED5V
FSELA
FSELB
CN29A
LED-a
LED-c
LED-e
LED-g
LED-G1
LED-OE
LED-SD
K1
K3
FUNCA
VOLA
REMOCON
M5V
FL-CK
FL-RS
LED-b
LED-d
LED-f
LED-G0
LED-G2
LED-LE
LED-CK
K2
K4
FUNCB
VOLB
STANDBY
GND
FL-DATA
LED5V
CD
TUNER
AUX
VDP
TV/DBS
V.AUX
VCR-1
VCR-2
VCR-3
TAPE-2
AC-3RF
CN12C
LED5V
CD
TUNER
AUX
VDP
TV/DBS
V.AUX
VCR-1
VCR-2
VCR-3
TAPE-2
AC-3RF
IU-2871-2
FUNCTION
LED UNIT
IU-2874-1
FLD UNIT
CN10E
(B TO B)
A
B
C
D
E
F
G
O
1
2
JWX4
IU-2874-2
MASTER VOLUME UNIT
IU-2874-5
VOLUME LED UNIT


6
7
8
9
10
11
IU-2872-2
C-VIDEO UNIT
RECA
INC
INB
INA
SI
SI
V-3
V-2
V-1
C-6V
C6V
COMP
VGND
OSD
CN8E
(B TO B)
CN8D
(B TO B)
IU-2872-1
S-VIDEO,
μCOM UNIT
(SV)
(V)
(SV)
(CV)
(CV)
(μCOM)
ER
WN
MULTI
CENTER
REAR
NC
STB2
DATA
CINEMA
CE2
DI
6V
H/P DET
TONE
NC
FRONT
SUBWOOFER
MUTE
STB3
STB1
CK
CE3
CE1
CL
DEFEAT
H/P
CD DIRECT
CN25A
25P FFC
N-DATA
N-STB
EL
F DSF1
C-3
ND
S1
ERF
INB
OUTA
OUTC
EMOD POWER
GAIN
SYNC
SP SO/MO
SP SS/ZR
SP SS/MO
SP RS/MO
IN-CK
A/D PD
SELCK
DF DSF2
OVL
EMP
F2
ERF
DINA
DINC
DOUTB
RESET
A/D POWER
SW GAIN
DSP SO/ZR
DSP SCK
DSP SI
DSP RS/ZR
BN
FL
BN
CN6B
-VKK
AGND
FL
FL
LED5V
LEDGND
CN5C
DSP-OFF
-VKK
AGND
FL
FL
LED-b
LED-d
LED-f
LED-G0
LED-G2
LED-LE
LED-CK
K2
K4
FUNCB
VOLB
STANDBY
GND
FL-DATA
LED-a
LED-c
LED-e
LED-g
LED-G1
LED-OE
LED-SD
K1
K3
FUNCA
VOLA
REMOCON
M5V
FL-CK
FL-RS
FFC
IU-2874-4
HI - VISION UNIT
TUR
GND
TUL
STB3
CN3B
CN14A
CN14A
STB3
DATA
CK
SPIN
SLIN
GND
CIN
-15V
+15V
SROUT
SLOUT
GND
COUT
CN3B
TUR
GND
TUL
CN25A
CD DIRECT
H/P
DEFEAT
CL
CE1
CE3
CK
STB1
STB3
MUTE
SUBWOOFER
FRONT
NC
TONE
H/P DET
6V
DI
CE2
CINEMA
DATA
STB2
NC
REAR
CENTER
MULTI
CN15B
REAR R
GND
REAR L
S.W.
CENTER
GND
FRONT R
GND
FRONT L
GND
A/D PASS R
A/D PASS L
GND
A/D R
A/D L
CN9C
FL
GND
FR
+15V
-15V
RLGND
RLHB
H/P
H/P DET
IU-2871-1
AUDIO UNIT
+15V
GND
-15V
RLHB
RLGND
CN5B
COUT
GND
SWOUT
GND
SWIN
COUT
DEFEAT
CN7A
LIN
AGND
RIN
+15V
-15V
ROUT
AGND
LOUT
CN8A
GND
RLGND
RLHB
REAR
SUBWOOFER
CENTER
FRONT
MULTI
MUTE
GND
MULTI R
MULTI L
CN12D
(B TO B)
+15V
-15V
CL
DI
CE2
M6V
CN6A
(B TO B)
IU-2873-3
PRE OUT UNIT
CN8F
SR
SL
SW
CENTER
GND
FL
GND
FR
GND
REAR
SUBWOOFER
CENTER
FRONT
MULTI
M6V
CL
DI
CE3
MUTE
CN11C
(B TO B)
MUTE
CE3
DI
CL
M6V
MULTI
FRONT
CENTER
SUBWOOFER
REAR
NC
CN11B
(B TO B)
CN8F
FR
GND
FL
GND
CENTER
SW
SR
SL
IU-2928-2
SHIELD UNIT
N29A
LED5V
CD
TUNER
AUX
VDP
TV/DBS
V.AUX
VCR-1
VCR-2
VCR-3
TAPE-2
AC-3RF
CN12C
LED5V
CD
TUNER
AUX
VDP
TV/DBS
V.AUX
VCR-1
VCR-2
VCR-3
TAPE-2
AC-3RF
IU-2871-2
FUNCTION
LED UNIT
D UNIT
IU-2874-6
H/P UNIT
CN9C
FL
GND
FR
+15V
-15V
RLGND
RLHB
H/P
H/PDET
IU-2873-4
TONE
CONTROL UNIT
CN8A
LIN
GND
RIN
+15V
-15V
ROUT
GND
LOUT
CN7A
CIN
GND
SWIN
GND
SWOUT
COUT
DEFEAT

SCHEMATIC DIAGRAM - (1/11)


1
2
3
4
5
CN38 to 1U-2874-4
TUR
GND
TUL
TUNERR
TUNERL
E
to 1U-2875
A
B
C
D
IN
CD
JK406
C423 10/50(ARS) R463 470
OP271GP
IC452
R443 470K
C443 CQ100P(NH)
R483 100
C573 47/50(ARS)
R444 470K
C444 CQ100P(NH)
R484 100
C574
C424 10/50(ARS)
R464 470
CDL
CDR
VDP
JK407
C425 10/50(ARS) R465 470
NJM2068DDC
IC453
R445 470K
C445 CQ100P
R485 100
C575 47/50(ARS)
R446 470K
C446 CQ100P
R486 100
C576
C426 10/50(ARS) R466 470
VDPL
VDPR
TV/DBS
JK405
C427 10/16 R467 470
R447 470K
C447 CK100P
IC454
R487 100
C577 47/16
R448 470K
C448 CK100P
R488 100
C578 47/16
C428 10/16 R468 470
TVL
TVR
V. AUX
C429 10/16 R469 470
IC455
R449 470K
C449 CK100P
R489 100
C579 47/16
R450 470K
C450 CK100P
R490 100
C580 47/16
C430 10/16 R470 470
V. AUXL
V. AUXR
TAPE/ VCR-1
JK402
C431 10/16 R471 470
IC456
R451 470K
C451 CK100P
R491 100
C581 47/16
R452 470K
C452 CK100P
R492 100
C582 47/16
C432 10/16 R472 470
VCR-1L
VCR-1R
VCR-2
C433 10/16 R473 470
IC457
R453 470K
C453 CK100P
R493 100
C583 47/16
R454 470K
C454 CK100P
R494 100
C584 47/16
C434 10/16 R474 470
VCR-2L
VCR-2R
VCR-3
C435 10/16 R475 470
IC458
R455 470K
C455 CK100P
R495 100
C585 47/16
R456 470K
C456 CK100P
R496 100
C586 47/16
C436 10/16 R476 470
VCR-3L
VCR-3R
AUX
JK403
C437 10/16 R477 470
IC459
R457 470K
C457 CK100P
R497 100
C587 47/16
R458 470K
C458 CK100P
R498 100
C588 47/16
C438 10/16 R478 470
AUXL
AUXR
TAPE-2 MONITOR
JK404
C439 10/16 R479 470
IC460
R459 470K
C459 CK100P
R499 100
C589 47/16
R460 470K
C460 CK100P
R500 100
C590 47/16
C440 10/16 R480 470
TAPE-2L
TAPE-2R
R503 47K
R504 47K
R505 47K
R506 47K
R507 47K
R508 47K
R509 47K
R510 47K
R511 47K
R512 47K
R513 47K
R514 47K
R515 47K
R516 47K
R517 47K
R518 47K
R519 47K
R520 47K
C593 10/50(ARS)
C594 10/50(ARS)
C595 10/50(ARS)
C596 10/50(ARS)
C597 1/50
C598 1/50
C599 1/50
C600 1/50
C601 1/50
C602 1/50
C603 1/50
C604 1/50
C605 1/50
C606 1/50
C607 1/50
C608 1/50
C609 1/50
C610 1/50
RECOUT
TAPE-2
R629 470
R621 2.7M
R622 2.7M
R630 470
TAPE/ VCR-1
R631 470
V-1LOUT
R623 2.7M
R624 2.7M
V-1ROUT
R632 470
VCR-2
R633 470
V-2LOUT
R625 2.7M
R626 2.7M
V-2ROUT
R634 470
VCR-3
R635 470
V-3LOUT
R627 2.7M
R628 2.7M
V-3ROUT
R636 470
C525 CQ0.1(NH) 15V
C526 CQ0.1(NH) -15V
IC402 TC9274N
CDL
VDPL
TVL
V.AUXL
VCR-1L
VCR-2L
VCR-3L
AUXL
TUNERL
T-MONIL
SOURCEL
TAPE-2L
A/DL
A/DRASSL
D/AL
NC
STB1
DATA
CDR
VDPR
TVR
V.AUXR
VCR-1R
VCR-2R
VCR-3R
AUXR
TUNERR
T-MONIR
SOURCER
TAPE-2R
A/DR
A/DRASSR
D/AR
NC
GND
CK
CN11D
C527 CQ0.1(NH) 15V
C528 CQ0.1(NH) -15V
IC403 TC9274N
V-1ROUT
V-2ROUT
V-3ROUT
V-1LOUT
V-2LOUT
V-3LOUT
D/AR
D/AL
STB2
DATA
GND
CK
WIRE

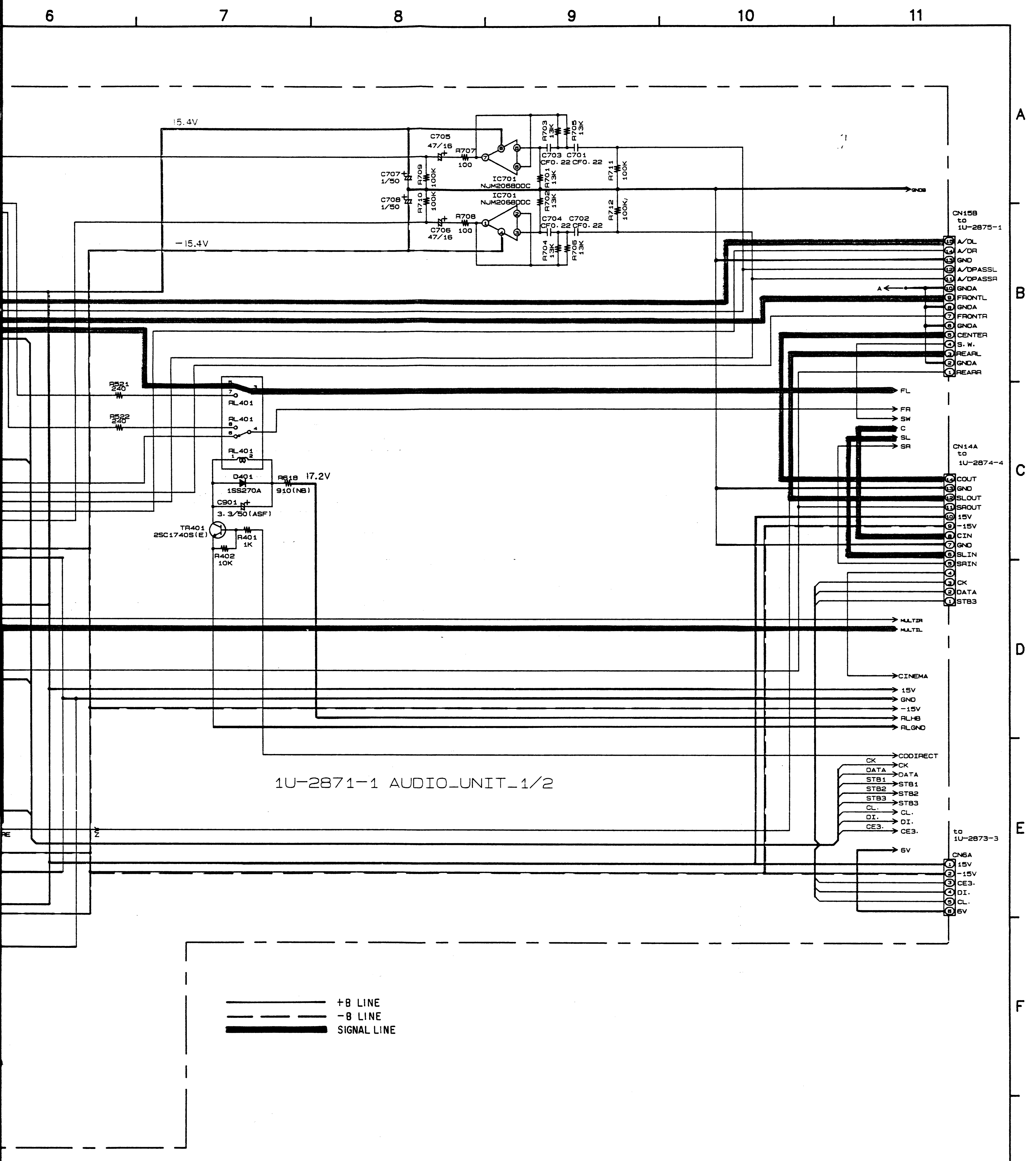

4
5
6
7
8
9
15.4V
-15.4V
C705 47/16
R707 100
C707 1/50
C708 1/50
R709 100K
R710 100K
IC701 NJM2068DDC
R703 13K
R705 13K
R701 13K
R702 13K
R704 13K
R706 13K
C703 CF0.22
C701 CF0.22
C704 CF0.22
C702 CF0.22
R711 100K
R712 100K
R708 100
C706 47/16
CDL
CDR
VDPL
VDPR
TVL
TVR
V. AUXL
V. AUXR
VCR-1L
VCR-1R
VCR-2L
VCR-2R
VCR-3L
VCR-3R
AUXL
AUXR
TAPE-2L
TAPE-2R
10/50(ARS)
1/50
C525 CQ0.1(NH) 15V
C526 CQ0.1(NH) -15V
IC402 TC9274N
T-MONIL
SOURCEL
A/DL
HPFL
A/DPASSL
D/AL
NC
STB1
DATA
T-MONIR
SOURCER
A/DR
HPFR
A/DPASSR
D/AR
GND
CK
CN11D
R521 240
R522 240
RL401
D401 1SS270A
R618 910(NB)
17.2V
C901 3.3/50(ASF)
TR401 2SC1740S(E)
R401 1K
R402 10K
C527 CQ0.1(NH) 15V
C528 CQ0.1(NH) -15V
IC403 TC9274N
V-1ROUT
V-2ROUT
V-3ROUT
V-1LOUT
V-2LOUT
V-3LOUT
STB2
WIRE
1U-2871-1 AUDIO_UNIT_1/2
+B LINE
-B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VAL
ALL CAPACITANCE VA
EACH VOLTAGE AND
CONDITION.
CIRCUIT AND PARTS
NOTICE.


6
7
8
9
10
11
A
B
C
D
E
F
15.4V
-15.4V
C705
47/16
R707
100
C707
1/50
C708
1/50
R709
100K
R710
100K
IC701
NJM2068DDC
R708
100
C706
47/16
R703
13K
R705
13K
C703
C701
CF0.22
R701
13K
R702
13K
R711
100K
R712
100K
C704
C702
CF0.22
R704
13K
R706
13K
GNDB
CN15B
to
1U-2875-1
A/DL
A/DR
GND
A/DPASSL
A/DPASSR
GNDA
FRONTL
GNDA
FRONTR
GNDA
CENTER
S.W.
REARL
GNDA
REARR
A
FL
FR
SW
C
SL
SR
R521
240
R522
240
RL401
RL401
RL401
D401
1SS270A
R618
910(NB)
17.2V
C901
3.3/50(ASF)
TR401
2SC1740S(E)
R401
1K
R402
10K
CN14A
to
1U-2874-4
COUT
GND
SLOUT
SROUT
15V
-15V
CIN
GND
SLIN
SRIN
CK
DATA
STB3
MULTIR
MULTIL
CINEMA
15V
GND
-15V
RLHB
RLGND
CDDIRECT
CK
DATA
STB1
STB2
STB3
CL.
DI.
CE3.
6V
to
1U-2873-3
CN6A
15V
-15V
CE3.
DI.
CL.
6V
1U-2871-1 AUDIO_UNIT_1/2
+B LINE
-B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

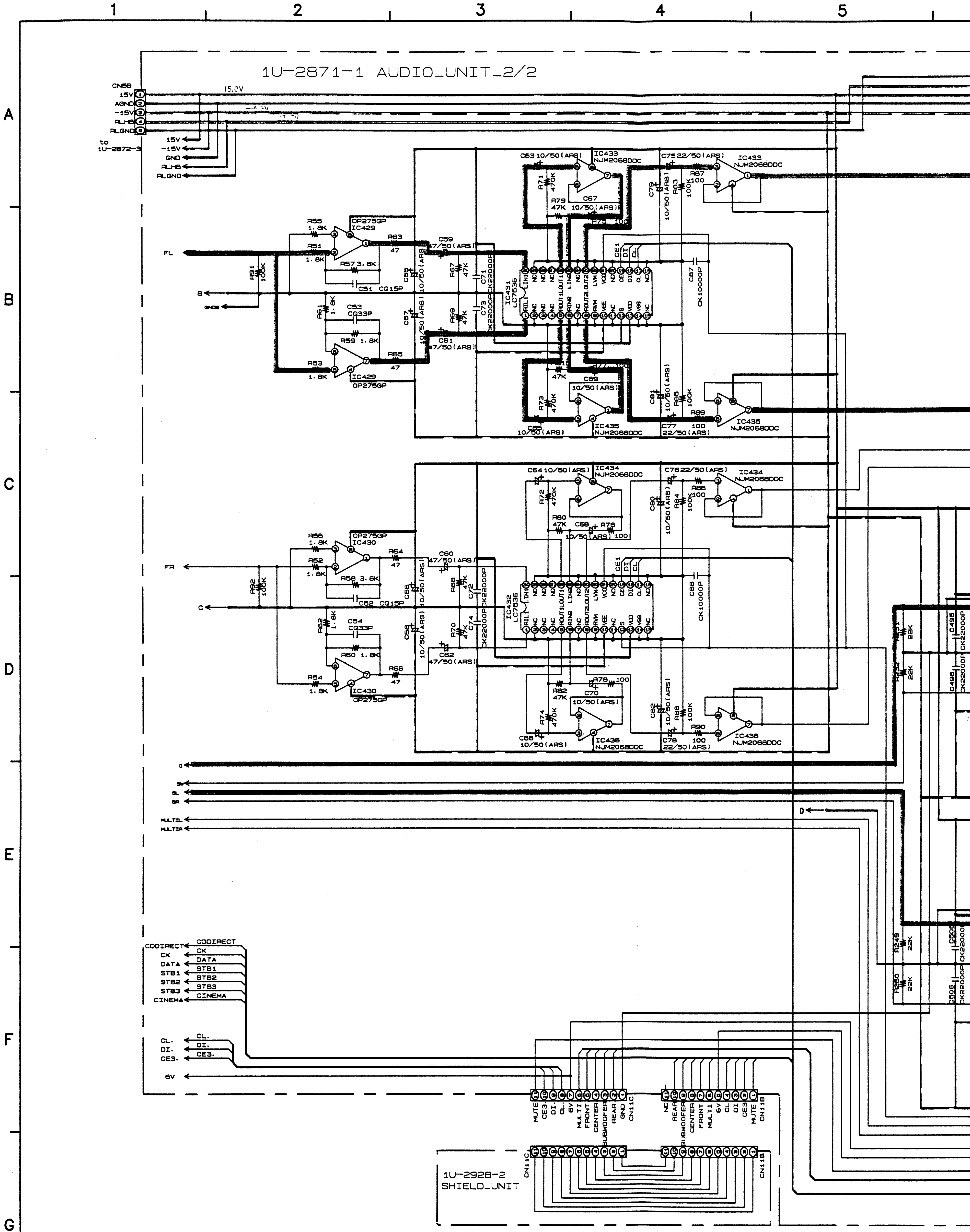
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

G
H

SCHEMATIC DIAGRAM - (2/11)


1
2
3
4
5
A
B
C
D
E
F
G
H
1U-2871-1 AUDIO_UNIT_2/2
CN58
15V
AGND
-15V
RLHB
RLGND
to
1U-2872-3
15V
-15V
GND
RLHB
RLGND
15.0V
FL
B
GNDB
FR
C
SW
SL
SR
MULTIL
MULTIR
IC429 OP275GP
IC430 OP275GP
IC431 LC7536
IC432 LC7536
IC433 NJM2068DDC
IC434 NJM2068DDC
IC435 NJM2068DDC
IC436 NJM2068DDC
R51 1.8K
R52 1.8K
R53 1.8K
R54 1.8K
R55 1.8K
R56 1.8K
R57 3.6K
R58 3.6K
R59 1.8K
R60 1.8K
R61 1.8K
R62 1.8K
R63 47
R64 47
R65 47
R66 47
R67 47K
R68 47K
R69 47K
R70 47K
R71 470K
R72 470K
R73 470K
R74 470K
R75 100
R76 100
R77 100
R78 100
R79 47K
R80 47K
R81 47K
R82 47K
R83 100K
R84 100K
R85 100K
R86 100K
R87 100
R88 100
R89 100
R90 100
R91 100K
R92 100K
C51 CQ15P
C52 CQ15P
C53 CQ33P
C54 CQ33P
C55 10/50(ARS)
C56 10/50(ARS)
C57 10/50(ARS)
C58 10/50(ARS)
C59 47/50(ARS)
C60 47/50(ARS)
C61 47/50(ARS)
C62 47/50(ARS)
C63 10/50(ARS)
C64 10/50(ARS)
C65 10/50(ARS)
C66 10/50(ARS)
C67 10/50(ARS)
C68 10/50(ARS)
C69 10/50(ARS)
C70 10/50(ARS)
C71 CK2200P
C72 CK2200P
C73 CK2200P
C74 CK2200P
C75 22/50(ARS)
C76 22/50(ARS)
C77 22/50(ARS)
C78 22/50(ARS)
C79 10/50(ARS)
C80 10/50(ARS)
C81 10/50(ARS)
C82 10/50(ARS)
C87 CK10000P
C88 CK10000P
R241 22K
R242 22K
R249 22K
R250 22K
C495 CK22000P
C496 CK22000P
C505 CK22000P
C506 CK22000P
D
CODIRECT
CK
DATA
STB1
STB2
STB3
CINEMA
CL.
DI.
CE3.
6V
MUTE
CE3
DI
CL
6V
MULTI
FRONT
CENTER
SUBWOOFER
REAR
GND
CN11C
NC
CN11B
1U-2928-2
SHIELD_UNIT

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

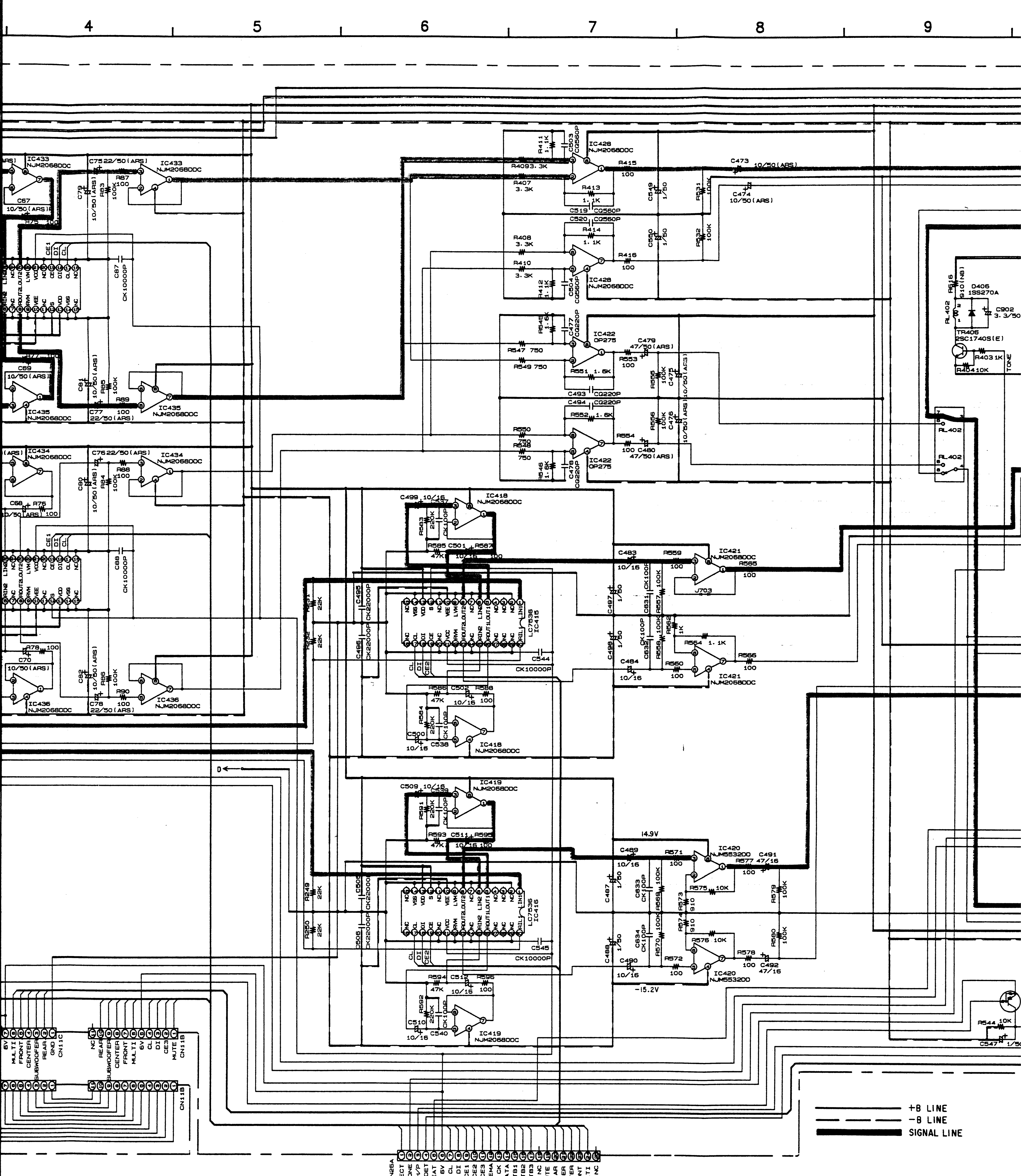
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.


4
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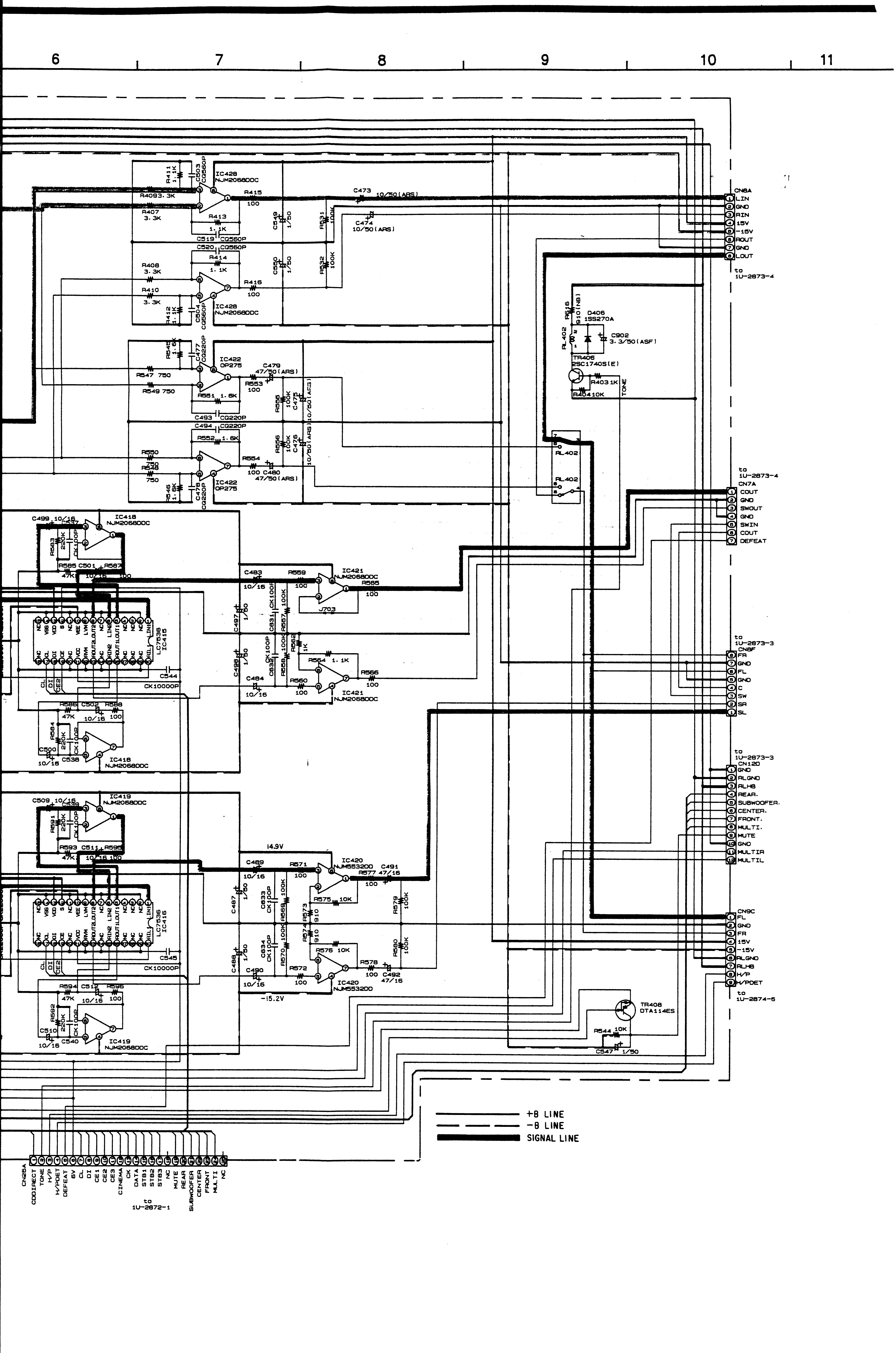
9
IC433 NJM2068DDC
C75 22/50(ARS)
C67 10/50(ARS)
C73 10/50(ARS)
R83 100K
R87 100
IC435 NJM2068DDC
C69 10/50(ARS)
C81 10/50(ARS)
R85 100K
R89 100
C77 22/50(ARS)
C87 CK10000P
IC434 NJM2068DDC
C76 22/50(ARS)
C68 10/50(ARS)
R76 100
C80 10/50(ARS)
R84 100K
R88 100
C88 CK10000P
IC436 NJM2068DDC
C70 10/50(ARS)
R78 100
C82 10/50(ARS)
R86 100K
R90 100
C78 22/50(ARS)
CE1
DI
CL
IC428 NJM2068DDC
R411 1.1K
C503 CQ560P
R409 3.3K
R407 3.3K
R413 1.1K
R415 100
C519 CQ560P
C549 1/50
R531 100K
C473 10/50(ARS)
C474 10/50(ARS)
C520 CQ560P
R414 1.1K
R408 3.3K
R410 3.3K
R412 1.1K
C504 CQ560P
R416 100
C550 1/50
R532 100K
IC422 OP275
R545 1.6K
C477 CQ220P
R547 750
R549 750
R551 1.6K
R553 100
C479 47/50(ARS)
R555 100K
C475 10/50(ARS)
C493 CQ220P
C494 CQ220P
R552 1.6K
R550 750
R548 750
R546 1.6K
C478 CQ220P
R554 100
C480 47/50(ARS)
R556 100K
C476 10/50(ARS)
R616 910(NB)
D406 1SS270A
C902 3.3/50
RL402
TR406 2SC1740S(E)
R403 1K
R404 10K
TONE
IC418 NJM2068DDC
C499 10/16
C537
R583 220K
CK100P
R585 47K
C501 10/16
R587 100
C495 CK22000P
C496 CK22000P
R251 22K
R252 22K
LC7536 IC416
C544 CK10000P
R586 47K
C502 10/16
R588 100
R584 220K
C500 10/16
C538
IC421 NJM2068DDC
C483 10/16
R559 100
R565 100
J703
C497 1/50
C831 CK100P
R557 100K
C498 1/50
C832 CK100P
R558 100K
R562 1K
R564 1.1K
R566 100
C484 10/16
R560 100
D
IC419 NJM2068DDC
C509 10/16
C539
R591 220K
R593 47K
C511 10/16
R595 100
C505 CK22000P
C506 CK22000P
R249 22K
R250 22K
LC7536 IC415
C545 CK10000P
R594 47K
C512 10/16
R596 100
R592 220K
C510 10/16
C540
IC420 NJM553200
14.9V
-15.2V
C489 10/16
R571 100
C491 47/16
R577 100
R575 10K
C487 1/50
C833 CK100P
R569 100K
R573 910
R579 100K
C488 1/50
C834 CK100P
R570 100K
R574 910
R576 10K
R578 100
C492 47/16
R580 100K
C490 10/16
R572 100
R544 10K
C547 1/50
CN11C
6V
MULTI
FRONT
CENTER
SUBWOOFER
REAR
GND
NC
REAR
SUBWOOFER
CENTER
FRONT
MULTI
6V
CL
DI
CE3
MUTE
CN11B
CN25A
CDDIRECT
TONE
H/P
H/PDET
DEFEAT
6V
CL
DI
CE1
CE2
CE3
CINEMA
CK
DATA
STB1
STB2
STB3
NC
MUTE
REAR
SUBWOOFER
CENTER
FRONT
MULTI
NC
to 1U-2872-1
+B LINE
-B LINE
SIGNAL LINE

NCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

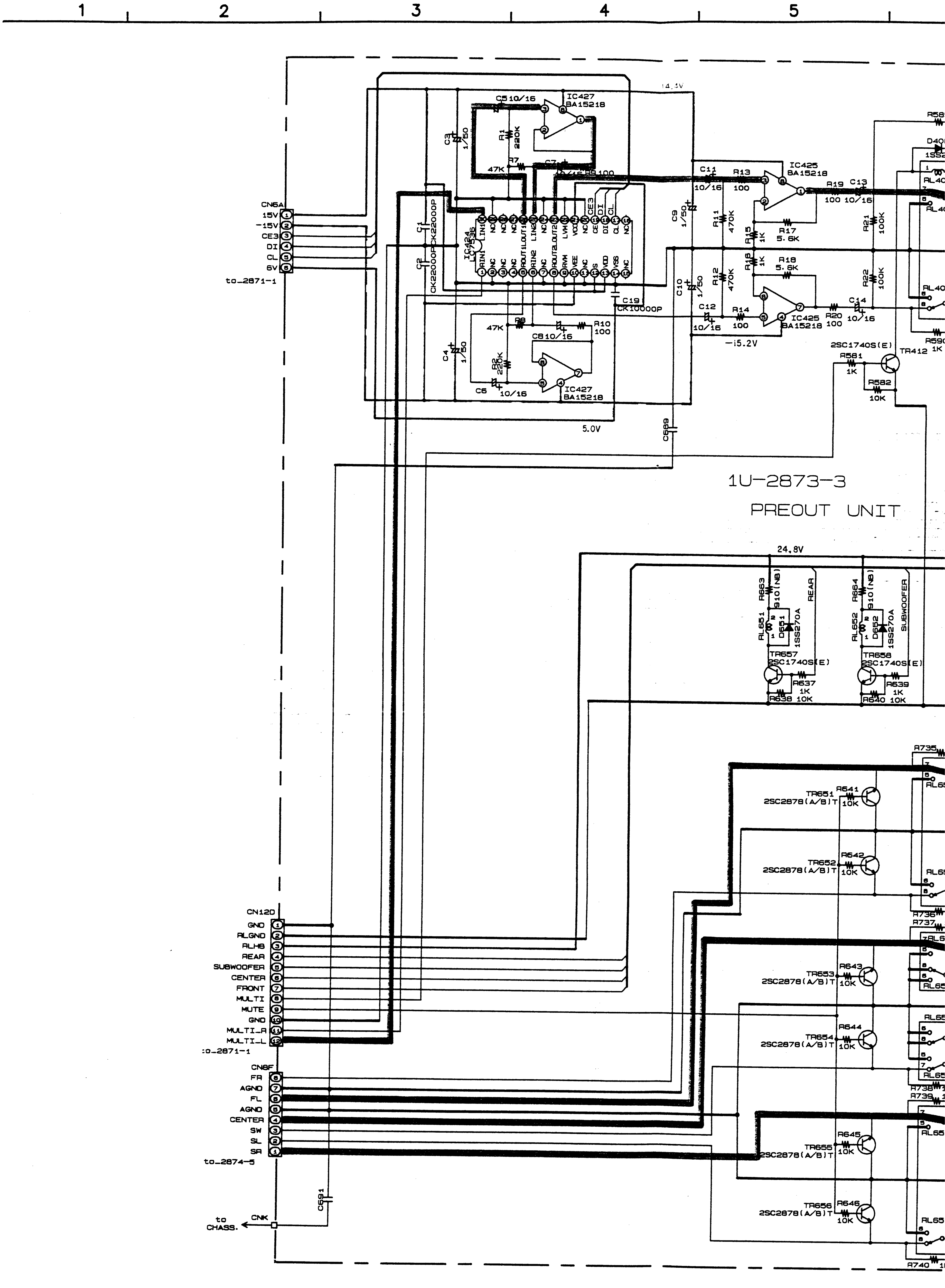
ANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

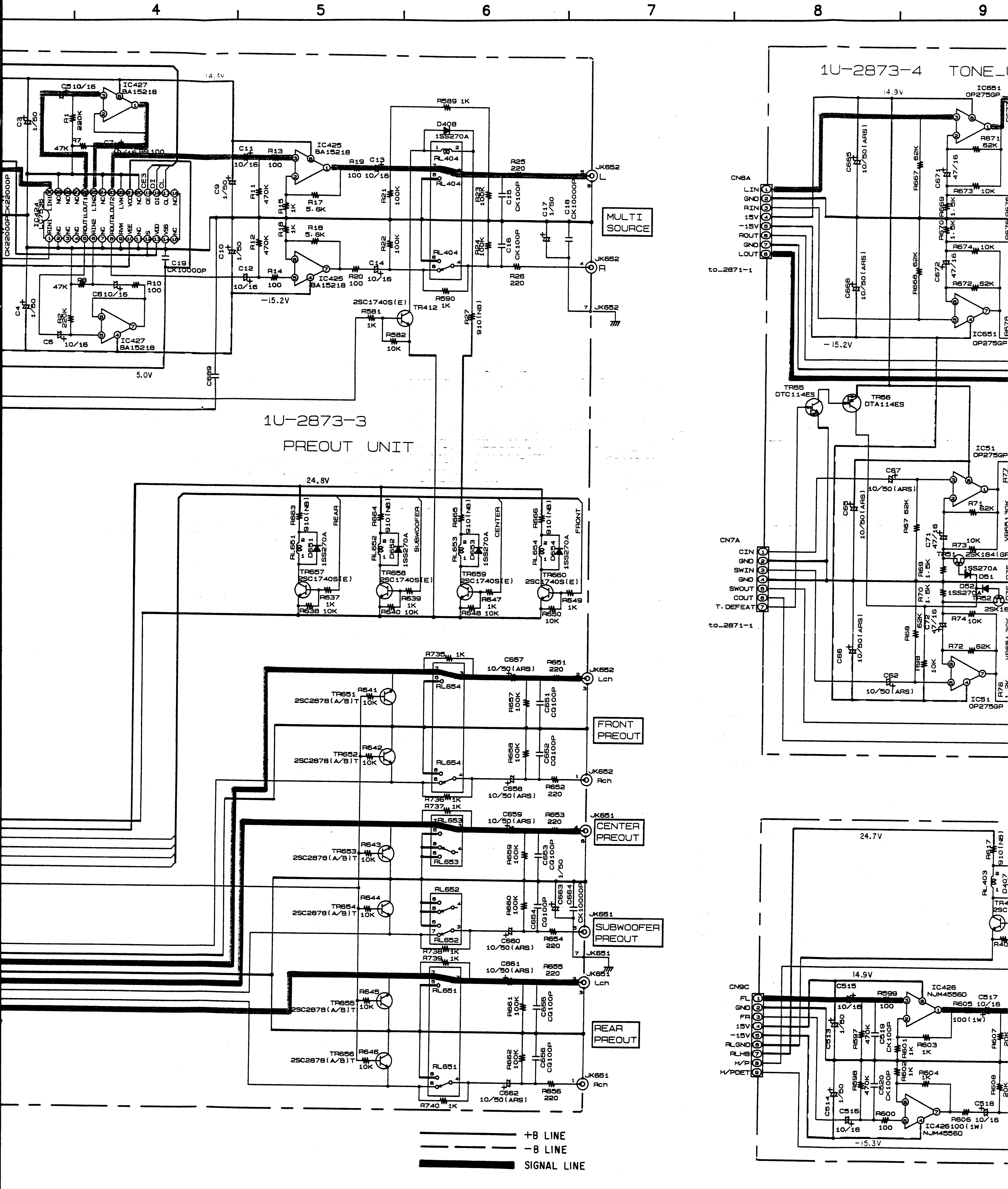
GE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT

PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR


6
7
8
9
10
11
CN6A
LIN
GND
RIN
15V
-15V
ROUT
GND
LOUT
to 1U-2873-4
IC428 NJM2068DDC
R411 1.1K
C503 CQ560P
R409 3.3K
R407 3.3K
R413 1.1K
R415 100
C519 CQ560P
C520 CQ560P
R414 1.1K
R408 3.3K
R410 3.3K
R412 1.1K
C504 CQ560P
R416 100
C473 10/50(ARS)
C474 10/50(ARS)
C549 1/50
C550 1/50
R531 100K
R532 100K
D406 1SS270A
R616 910(NB)
RL402
C902 3.3/50(ASF)
TR406 2SC1740S(E)
R403 1K
R404 10K
TONE
IC422 OP275
R545 1.6K
C477 CQ220P
R547 750
R549 750
C479 47/50(ARS)
R553 100
R551 1.6K
C493 CQ220P
R555 100K
C475 10/50(ARS)
C494 CQ220P
R552 1.6K
R550 750
R548 750
R554 100
C480 47/50(ARS)
R556 100K
C476 10/50(ARS)
R546 1.6K
C478 CQ220P
to 1U-2873-4
CN7A
COUT
GND
SWOUT
GND
SWIN
COUT
DEFEAT
IC418 NJM2068DDC
C499 10/16
R583 220K
C537 CK100P
R585 47K
C501 10/16
R587 100
LC7536 IC416
C544 CK10000P
IC421 NJM2068DDC
C483 10/16
R559 100
R565 100
J703
C497 1/50
C631 CK100P
R557 100K
C632 CK100P
R558 100K
R562 1K
R564 1.1K
R566 100
C498 1/50
C484 10/16
R560 100
R586 47K
C502 10/16
R588 100
R584 220K
C500 10/16
C538 CK100P
to 1U-2873-3
CN8F
FR
GND
FL
GND
C
SW
SR
SL
to 1U-2873-3
CN120
GND
RLGND
RLHB
REAR.
SUBWOOFER.
CENTER.
FRONT.
MULTI.
MUTE
GND
MULTIR
MULTIL
IC419 NJM2068DDC
C509 10/16
R591 220K
C539 CK100P
R593 47K
C511 10/16
R595 100
14.9V
IC420 NJM5532DD
C489 10/16
R571 100
C491 47/16
R577 100
R575 10K
R579 100K
C487 1/50
C633 CK100P
R569 100K
R573 910
R574 910
C634 CK100P
R570 100K
R576 10K
R578 100
C492 47/16
R580 100K
C488 1/50
C490 10/16
R572 100
-15.2V
C545 CK10000P
R594 47K
C512 10/16
R596 100
R592 220K
C510 10/16
C540 CK100P
CN9C
FL
GND
FR
15V
-15V
RLGND
RLHB
H/P
H/PDET
to 1U-2874-5
TR408 DTA114ES
R544 10K
C547 1/50
+B LINE
-B LINE
SIGNAL LINE
CN26A
CDDIRECT
TONE
H/P
H/PDET
DEFEAT
6V
CL
DI
CE1
CE2
CE3
CINEMA
CK
DATA
STB1
STB2
STB3
NC
MUTE
REAR
SUBWOOFER
CENTER
FRONT
MULTI
NC
to 1U-2872-1

SCHEMATIC DIAGRAM - (3/11)


1
2
3
4
5
1U-2873-3
PREOUT UNIT
CN6A
15V
-15V
CE3
DI
CL
6V
to_2871-1
IC427
BA15218
C5 10/16
C3 1/50
R1 220K
R7 47K
C7
IC424
LC7536
C1 CK2200P
C2 CK2200P
RIN1
LIN1
ROUT1
LOUT1
RIN2
LIN2
ROUT2
LOUT2
RVH
LVH
VEE
VDD
CE
DI
CL
S
VSS
NC
C19 CK10000P
R8 47K
R10 100
C8 10/16
C4 1/50
R2 220K
C6 10/16
14.1V
5.0V
C589
IC425
BA15218
C11 10/16
R13 100
C9 1/50
R11 470K
R15 1K
R17 5.6K
R19 100
C13 10/16
R21 100K
C10 1/50
R12 470K
R16 1K
R18 5.6K
R22 100K
C12 10/16
R14 100
R20 100
C14 10/16
-15.2V
2SC1740S(E)
TR412
R581 1K
R582 10K
R590 1K
24.8V
R663 910(NB)
RL651
D651 1SS270A
REAR
TR657 2SC1740S(E)
R637 1K
R638 10K
R664 910(NB)
RL652
D652 1SS270A
SUBWOOFER
TR658 2SC1740S(E)
R639 1K
R640 10K
R735
TR651 2SC2878(A/B)T
R641 10K
TR652 2SC2878(A/B)T
R642 10K
R736
R737
TR653 2SC2878(A/B)T
R643 10K
TR654 2SC2878(A/B)T
R644 10K
R738
R739
TR655 2SC2878(A/B)T
R645 10K
TR656 2SC2878(A/B)T
R646 10K
R740
CN120
GND
RLGND
RLHB
REAR
SUBWOOFER
CENTER
FRONT
MULTI
MUTE
GND
MULTI_R
MULTI_L
to_2871-1
CN8F
FR
AGND
FL
AGND
CENTER
SW
SL
SR
to_2874-5
C691
to CHASS.
CNK

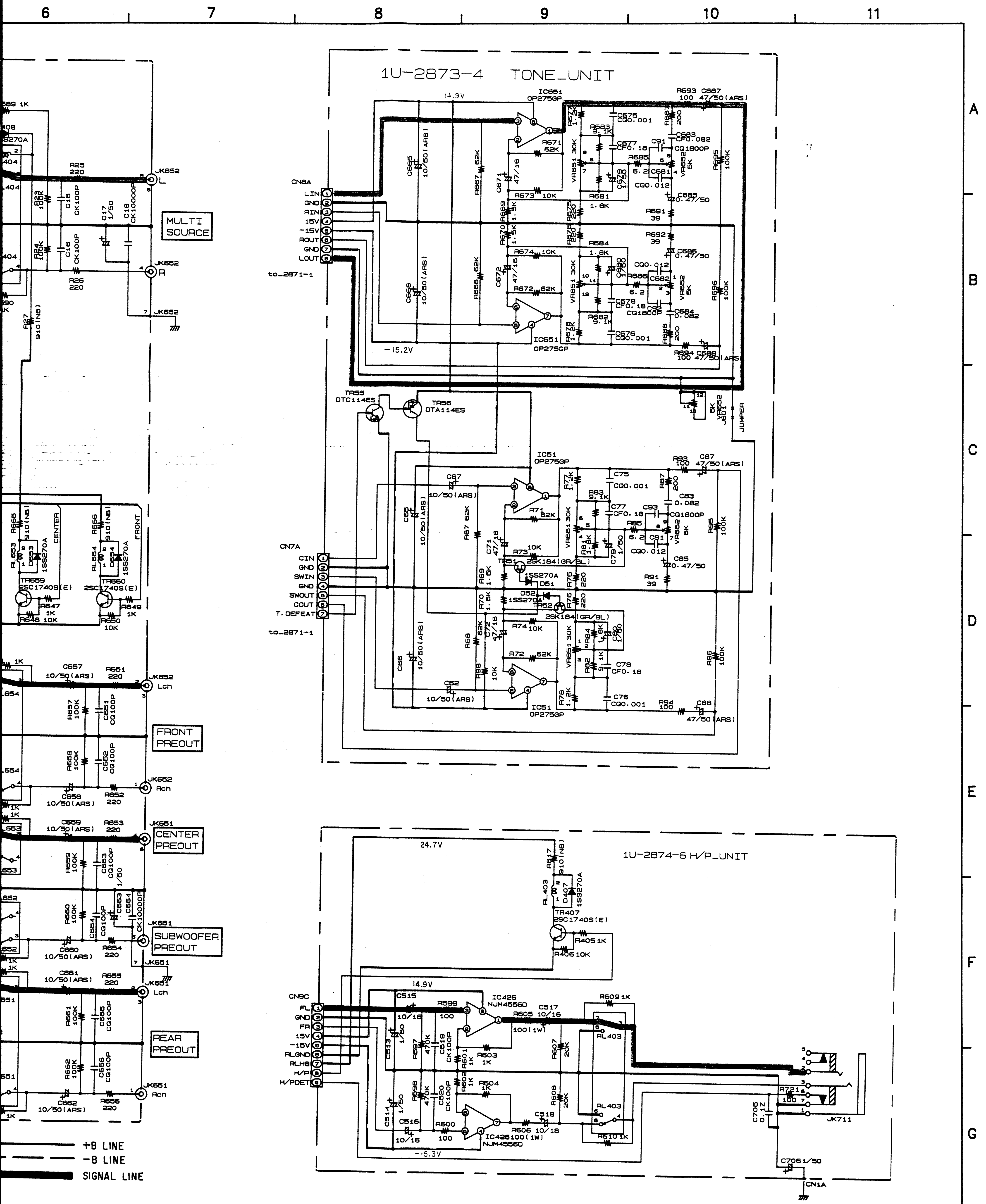

4
5
6
7
8
9
1U-2873-3
PREOUT UNIT
1U-2873-4 TONE_
MULTI SOURCE
FRONT PREOUT
CENTER PREOUT
SUBWOOFER PREOUT
REAR PREOUT
IC427 BA15218
IC425 BA15218
IC424 LC7536
IC651 OP275GP
IC51 OP275GP
IC426 NJM45560
CN8A
CN7A
CN9C
to_2871-1
JK652
JK651
L
R
Lch
Rch
RL404
RL651
RL652
RL653
RL654
D408 1SS270A
TR412 2SC1740S(E)
TR55 DTC114ES
TR56 DTA114ES
TR651 2SC2878(A/B)T
TR652 2SC2878(A/B)T
TR653 2SC2878(A/B)T
TR654 2SC2878(A/B)T
TR655 2SC2878(A/B)T
TR656 2SC2878(A/B)T
TR657 2SC1740S(E)
TR658 2SC1740S(E)
TR659 2SC1740S(E)
TR660 2SC1740S(E)
REAR
SUBWOOFER
CENTER
FRONT
LIN
GND
RIN
15V
−15V
ROUT
LOUT
CIN
SWIN
SWOUT
COUT
T. DEFEAT
FL
FR
RLGND
RLHB
H/P
H/PDET
14.9V
24.8V
24.7V
−15.2V
−15.3V
5.0V
+B LINE
−B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTAN
ALL CAPACITA
EACH VOLTAG
CONDITION.
CIRCUIT AND
NOTICE.


6
7
8
9
10
11
A
B
C
D
E
F
G
1U-2873-4 TONE_UNIT
IC651 OP275GP
14.9V
-15.2V
CN8A
LIN
GND
RIN
15V
-15V
ROUT
GND
LOUT
to_2871-1
TR55 DTC114ES
TR56 DTA114ES
IC51 OP275GP
CN7A
CIN
GND
SWIN
GND
SWOUT
COUT
T. DEFEAT
to_2871-1
TR51 2SK184(GR/BL)
TR52 2SK184(GR/BL)
D51 1SS270A
D52 1SS270A
VR651 30K
VR652 5K
JUMPER
MULTI SOURCE
JK652 L
JK652 R
FRONT PREOUT
JK652 Lch
JK652 Rch
CENTER PREOUT
JK651
SUBWOOFER PREOUT
REAR PREOUT
JK651 Lch
JK651 Rch
CENTER
FRONT
TR659 2SC1740S(E)
TR660 2SC1740S(E)
1U-2874-6 H/P_UNIT
24.7V
TR407 2SC1740S(E)
D407 1SS270A
RL403
CN9C
FL
GND
FR
15V
-15V
RLGND
RLHB
H/P
H/PDET
IC426 NJM4556D
14.9V
-15.3V
JK711
CN1A
+B LINE
-B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES

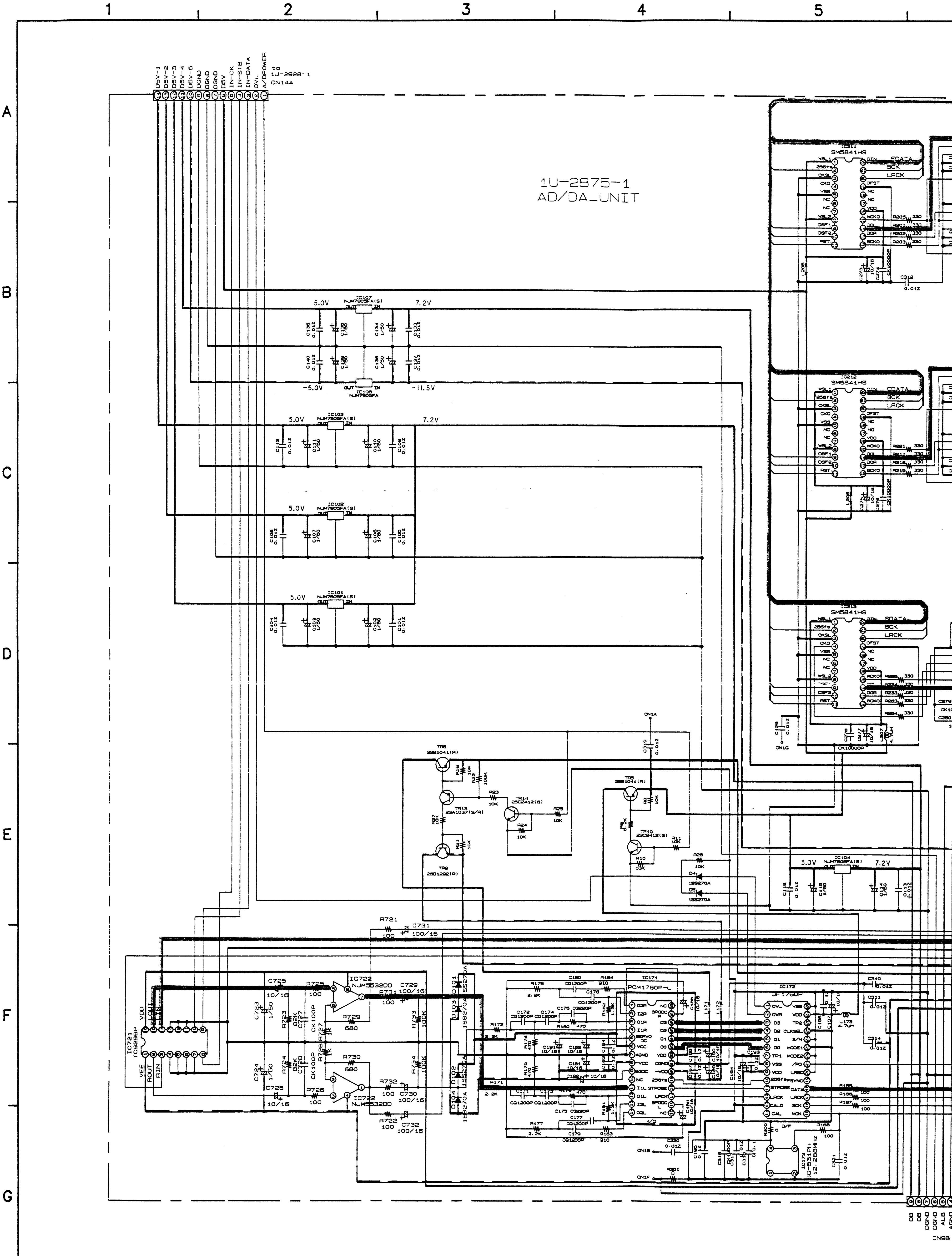
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAM - (4/11)


1
2
3
4
5
A
B
C
D
E
F
G
H
D5V-1
D5V-2
D5V-3
D5V-4
D5V-5
DGND
DGND
DGND
D5V
IN-CK
IN-STB
IN-DATA
OVL
A/DPOWER
to
1U-2928-1
CN14A
1U-2875-1
AD/DA_UNIT
IC211
SM5841HS
IC212
SM5841HS
IC213
SM5841HS
SDATA
BCK
LRCK
IC107
NJM7805FA(S)
IC108
NJM7905FA
5.0V
7.2V
-5.0V
-11.5V
IC103
NJM7805FA(S)
IC102
NJM7805FA(S)
IC101
NJM7805FA(S)
IC104
NJM7805FA(S)
TR8
2SB1041(R)
TR13
2SA1037(S/R)
TR14
2SC2412(S)
TR9
2SD1292(R)
TR5
2SB1041(R)
TR10
2SC2412(S)
1SS270A
CN1A
CN1G
CN1B
CN1F
IC721
TC9299P
VDD
VEE
ROUT
RIN
IC722
NJM5532DD
R721
C731
100/16
C725
10/16
R725
100
C729
100/16
R731
R729
680
R730
680
C726
10/16
R726
R732
C730
100/16
R722
C732
100/16
D101
D103
D102
D104
IC171
PCM1750P-L
IC172
DF1750P
L173
4.7uH
IC173
SG-531PH
12.288MHz
DB
DB
DGND
DGND
ALB
AGND
CN9B

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

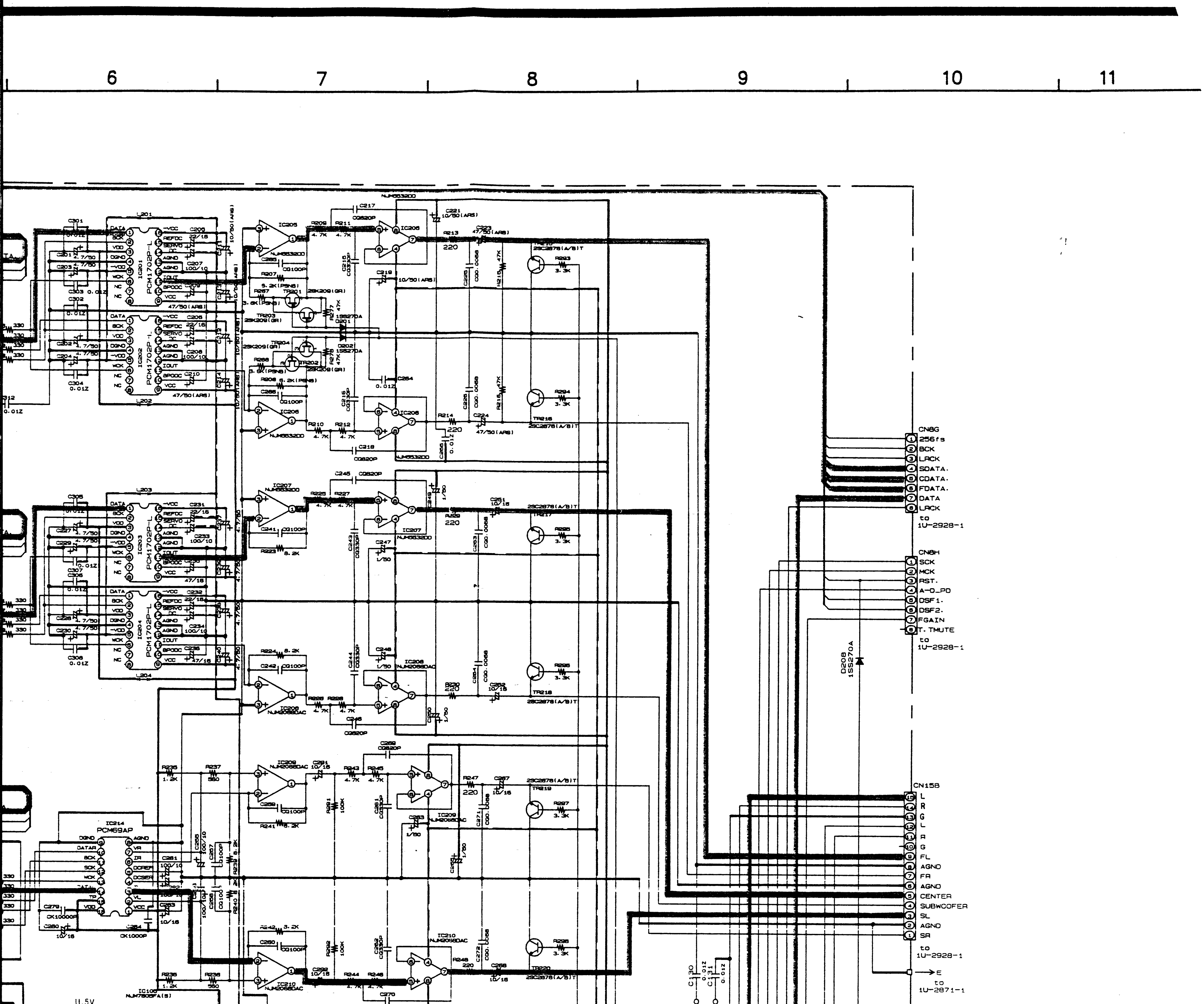
NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

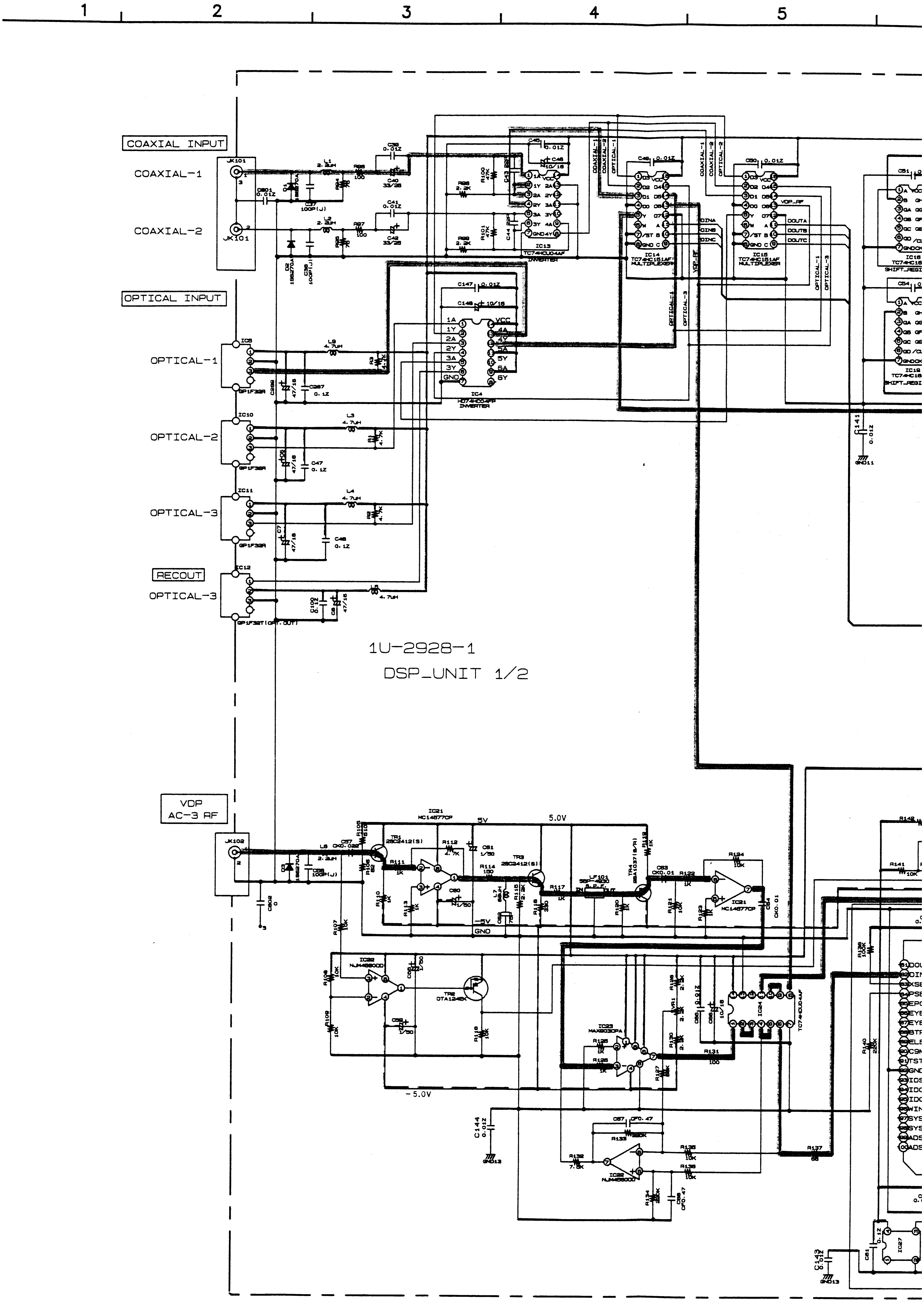
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

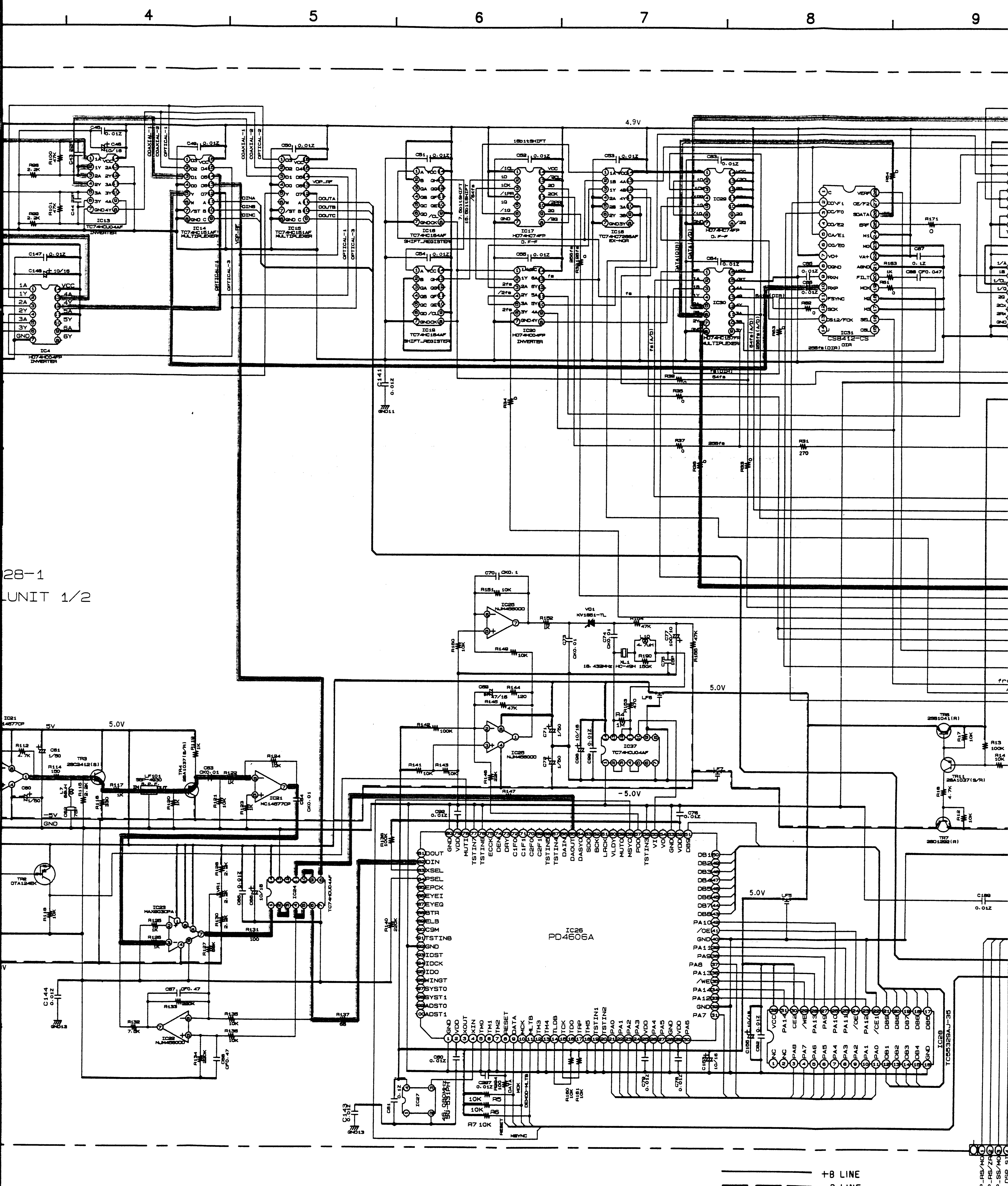
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

6
7
8
9
10
11
PCM1702P-L
IC201
IC202
IC203
IC204
IC205
IC206
IC207
IC208
IC209
IC210
IC214
PCM69AP
NJM5532DD
NJM2068DAC
TR203 2SK209(GR)
TR204 2SK209(GR)
TR201 2SK209(GR)
TR202 2SK209(GR)
1SS270A
2SC2878(A/B)T
TR210 DTA143EK
TR211 DTC144EK
TR221 DTA114EK
IC105 NJM7805FA(S)
IC106 NJM7905FA
11.5V
5.0V
-11.4V
-4.9V
-15.0V
15.0V
CN8G
256fs
BCK
LRCK
SDATA.
CDATA.
FDATA.
DATA
LRCK
to 1U-2928-1
CN8H
SCK
MCK
RST.
A-O_PD
DSF1.
DSF2.
FGAIN
T.TMUTE
to 1U-2928-1
D208 1SS270A
CN15B
L
R
G
L
R
G
FL
AGND
FR
AGND
CENTER
SUBWOOFER
SL
AGND
SR
to 1U-2928-1
E
to 1U-2871-1
CN1C
CN1D
CN1E
CN1M
DB
DB
DGND
DGND
ALB
AGND
A-LB
15V
-15V
toCHASS.
CN9B to 1U-2872-3
+B LINE
-B LINE
SIGNAL LINE

AD
UT

SCHEMATIC DIAGRAM - (5/11)


1
2
3
4
5
COAXIAL INPUT
COAXIAL-1
COAXIAL-2
JK101
OPTICAL INPUT
OPTICAL-1
OPTICAL-2
OPTICAL-3
RECOUT
OPTICAL-3
IC5
IC10
IC11
IC12
GP1F32R
GP1F32T(OPT.OUT)
IC4
HD74HC04FP
INVERTER
IC13
TC74HCU04AF
INVERTER
IC14
TC74HC151AF
MULTIPLEXER
IC15
TC74HC151AF
MULTIPLEXER
IC16
TC74HC16
SHIFT_REGI
IC19
TC74HC16
SHIFT_REGI
DOUTA
DOUTB
DOUTC
DINA
DINB
DINC
VDP_RF
1U-2928-1
DSP_UNIT 1/2
VDP
AC-3 RF
JK102
IC21
MC14577CP
5V
5.0V
TR1
2SC2412(S)
TR3
2SC2412(S)
TR4
2SA1037(S/R)
LF101
SBF-4930
B.P.F.
IC22
NJM4560DD
TR2
DTA124EK
IC23
MAX903CPA
IC24
TC74HCU04AF
-5.0V
-5V
GND
C144
0.01Z
GND13
GND11
C141
0.01Z
IC27


4
5
6
7
8
9
4.9V
IC13 TC74HCU04AF INVERTER
IC14 TC74HC151AF MULTIPLEXER
IC15 TC74HC151AF MULTIPLEXER
COAXIAL-1
COAXIAL-2
OPTICAL-1
OPTICAL-2
OPTICAL-3
IC18 TC74HC164AF SHIFT REGISTER
IC19 TC74HC164AF SHIFT REGISTER
16bitSHIFT
IC17 HD74HC74FP D.F-F
IC20 HD74HC04FP INVERTER
IC16 TC74HC7266AF EX-NOR
IC29 HD74HC74FP D.F-F
IC30 HD74HC157FP MULTIPLEXER
IC31 CS8412-CS DIR
IC4 HD74HC04FP INVERTER
DOUTA
DOUTB
DOUTC
DINA
DINB
DINC
GND11
28-1
UNIT 1/2
IC25 NJM4560D
VD1 KV1561-TL
XL1 16.9344MHz HC-49H
IC37 TC74HCU04AF
5.0V
-5.0V
IC21 HC14577CP
IC23 MAX903CPA
IC22 NJM4560D
IC24 TC74HCU04AF
IC26 PD4606A
IC28 TC55329AJ-35
IC27
GND13
HSYNC
RESET

+B LINE

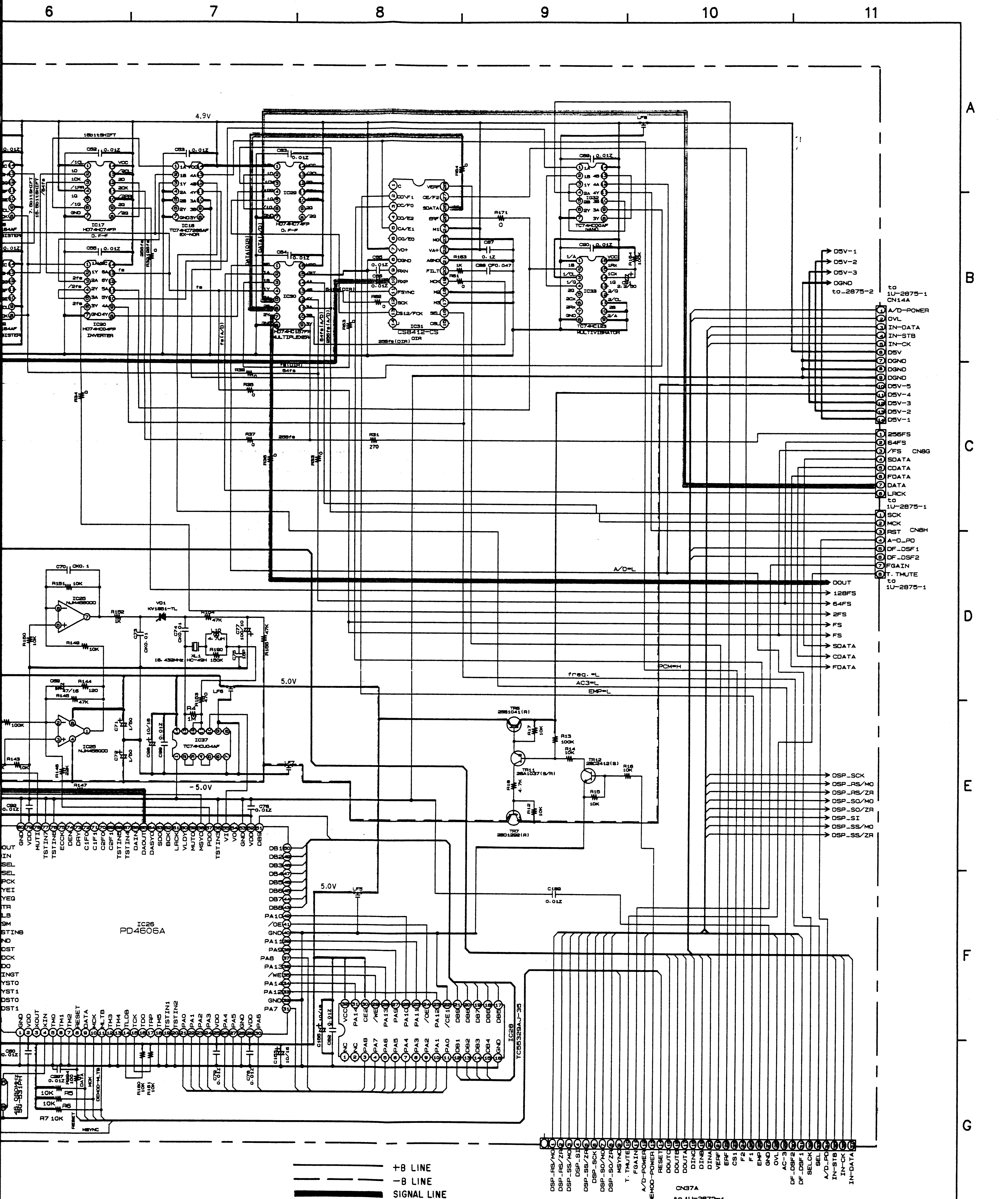
-B LINE

SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.


6
7
8
9
10
11
A
B
C
D
E
F
G
H
IC17 HD74HC74FP D.F-F
IC18 TC74HC7266AF EX-NOR
IC29 HD74HC74FP D.F-F
IC30 HD74HC04FP INVERTER
IC30 HD74HC157FP MULTIPLEXER
IC31 CS8412-CS DIR
IC32 TC74HC00AF NAND
IC33 TC74HC123 MULTIVIBRATOR
IC25 NJM4560D
IC37 TC74HCU04AF
IC26 PD4606A
IC28 TC55329AJ-35
XL1 18.432MHz HC-49H
TR6 2SB1041(R)
TR11 2SA1037(S/R)
TR12 2SC2412(S)
TR7 2SD1292(R)
4.9V
5.0V
-5.0V
A/D=L
PCM=H
freq.=L
AC3=L
EMP=L
D5V-1
D5V-2
D5V-3
DGND
to 2875-2
to 1U-2875-1 CN14A
A/D-POWER
OVL
IN-DATA
IN-STB
IN-CK
D5V
DGND
DGND
DGND
D5V-5
D5V-4
D5V-3
D5V-2
D5V-1
256FS
64FS
/FS CN8G
SDATA
CDATA
FDATA
DATA
LRCK
to 1U-2875-1
SCK
MCK
RST CN8H
A-D_PD
DF_DSF1
DF_DSF2
FGAIN
T.TMUTE
to 1U-2875-1
DOUT
128FS
64FS
2FS
FS
FS
SDATA
CDATA
FDATA
DSP_SCK
DSP_RS/MO
DSP_RS/ZR
DSP_SO/MO
DSP_SO/ZR
DSP_SI
DSP_SS/MO
DSP_SS/ZR
CN37A
to 1U-2872-1
+B LINE
-B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

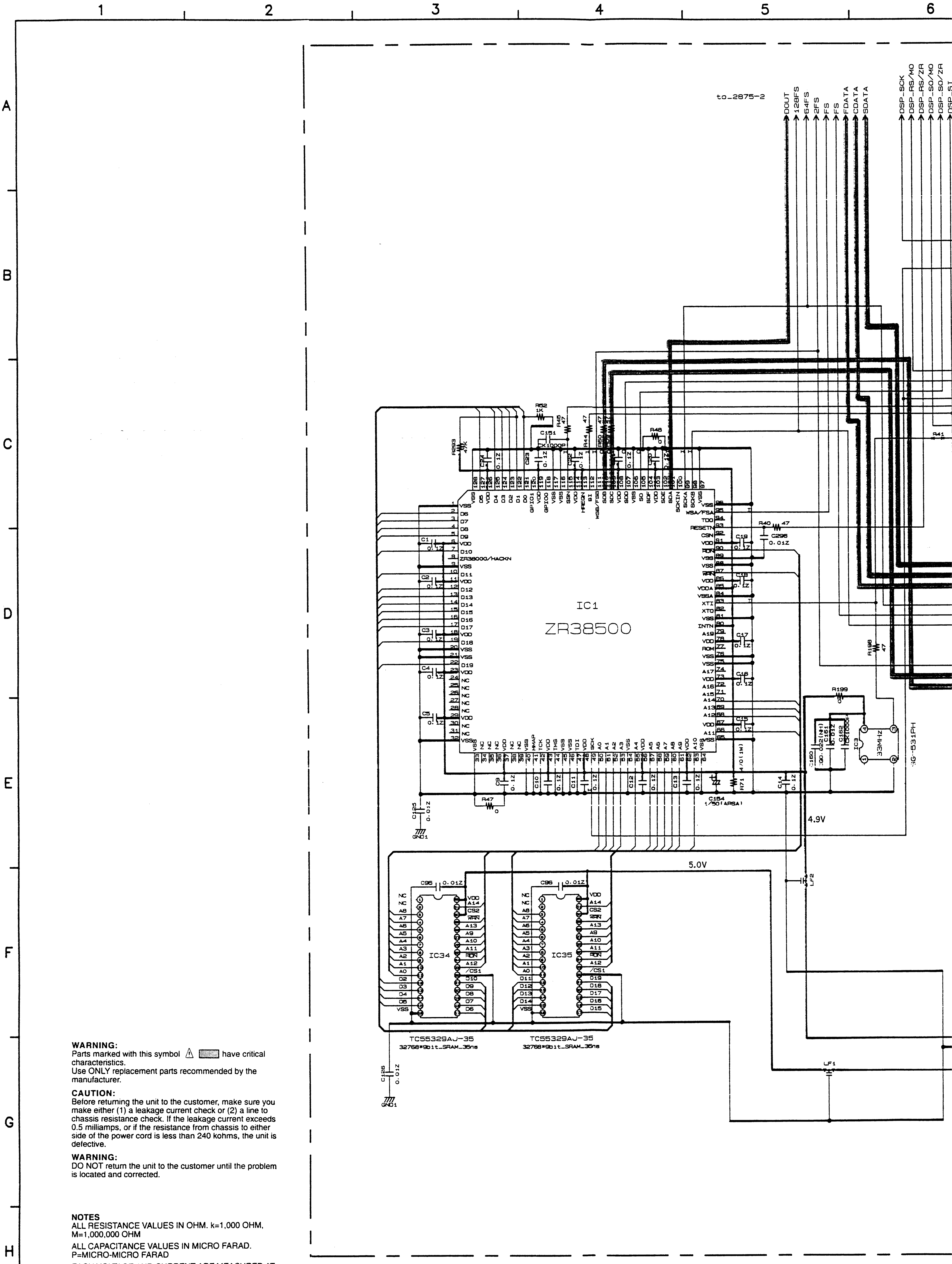
NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAM - (6/11)


1
2
3
4
5
6
A
B
C
D
E
F
G
H
to_2875-2
DOUT
128FS
64FS
2FS
FS
FS
FDATA
CDATA
SDATA
DSP_SCK
DSP_RS/MO
DSP_RS/ZR
DSP_SO/MO
DSP_SO/ZR
IC1
ZR38500
R199
33MHz
IC3
C154
4.9V
5.0V
LF1
LF2
IC34
IC35
TC55329AJ-35
32768*9bit_SRAM_35ns
TC55329AJ-35
32768*9bit_SRAM_35ns
GND1

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

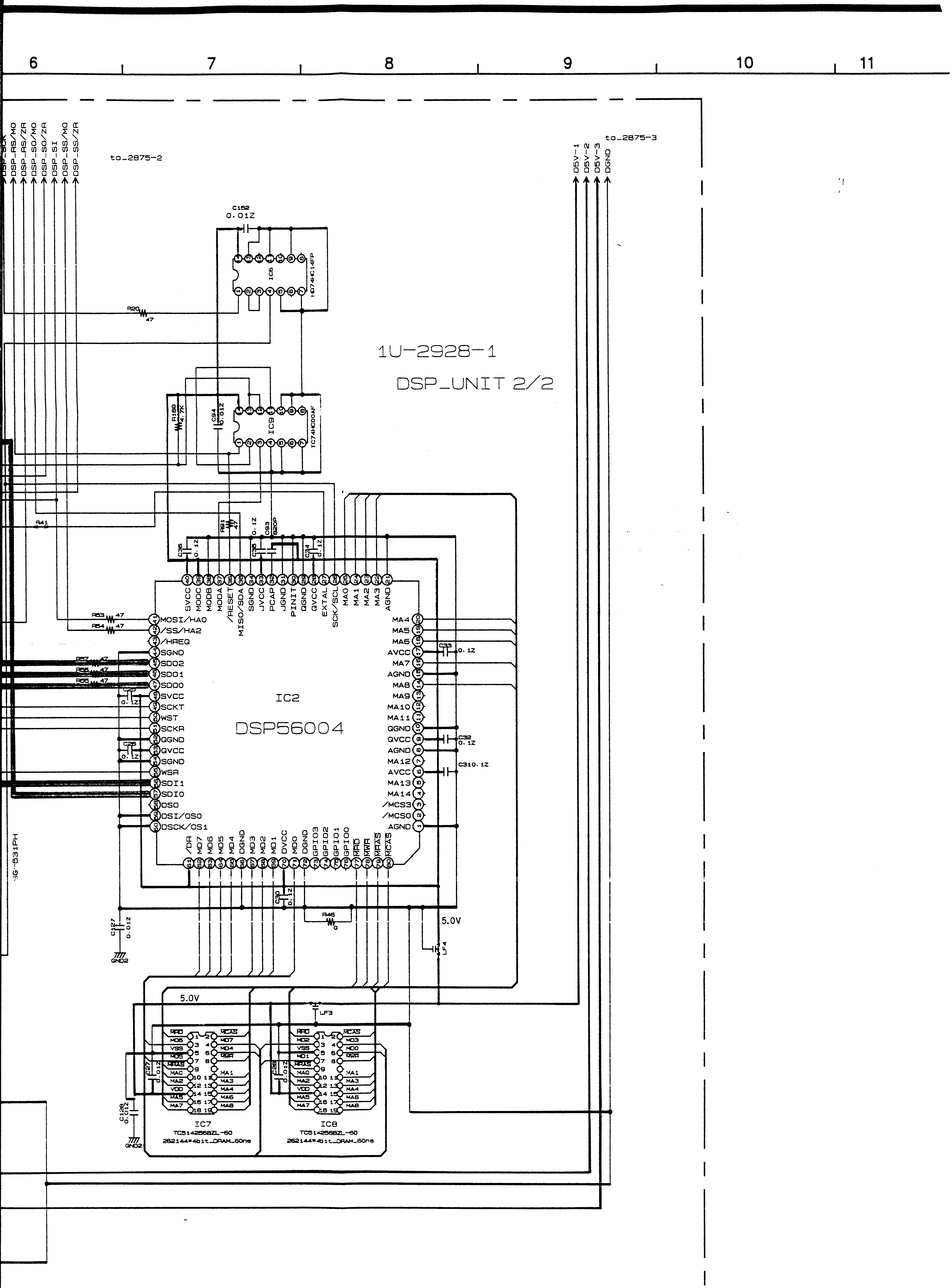
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

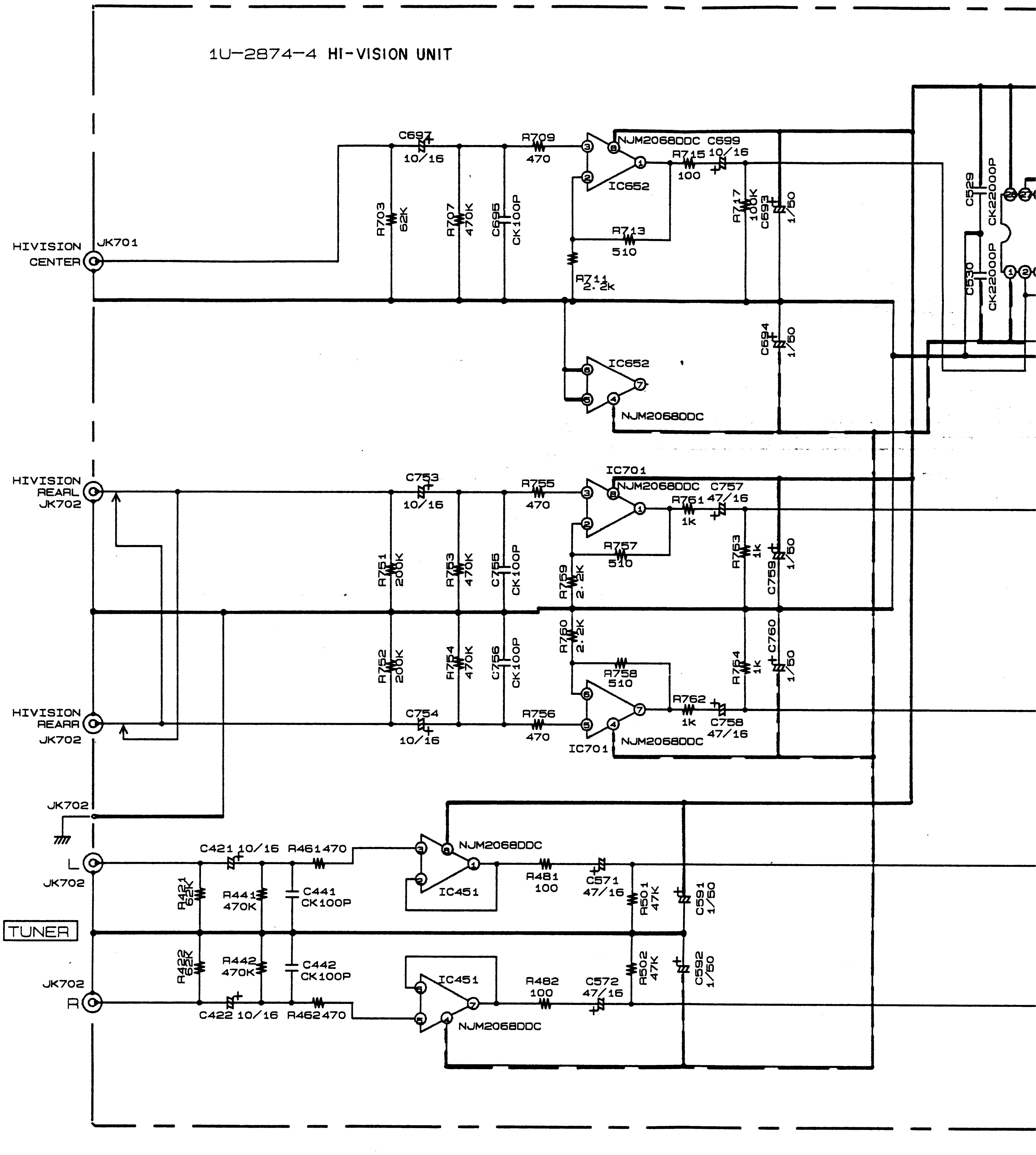
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

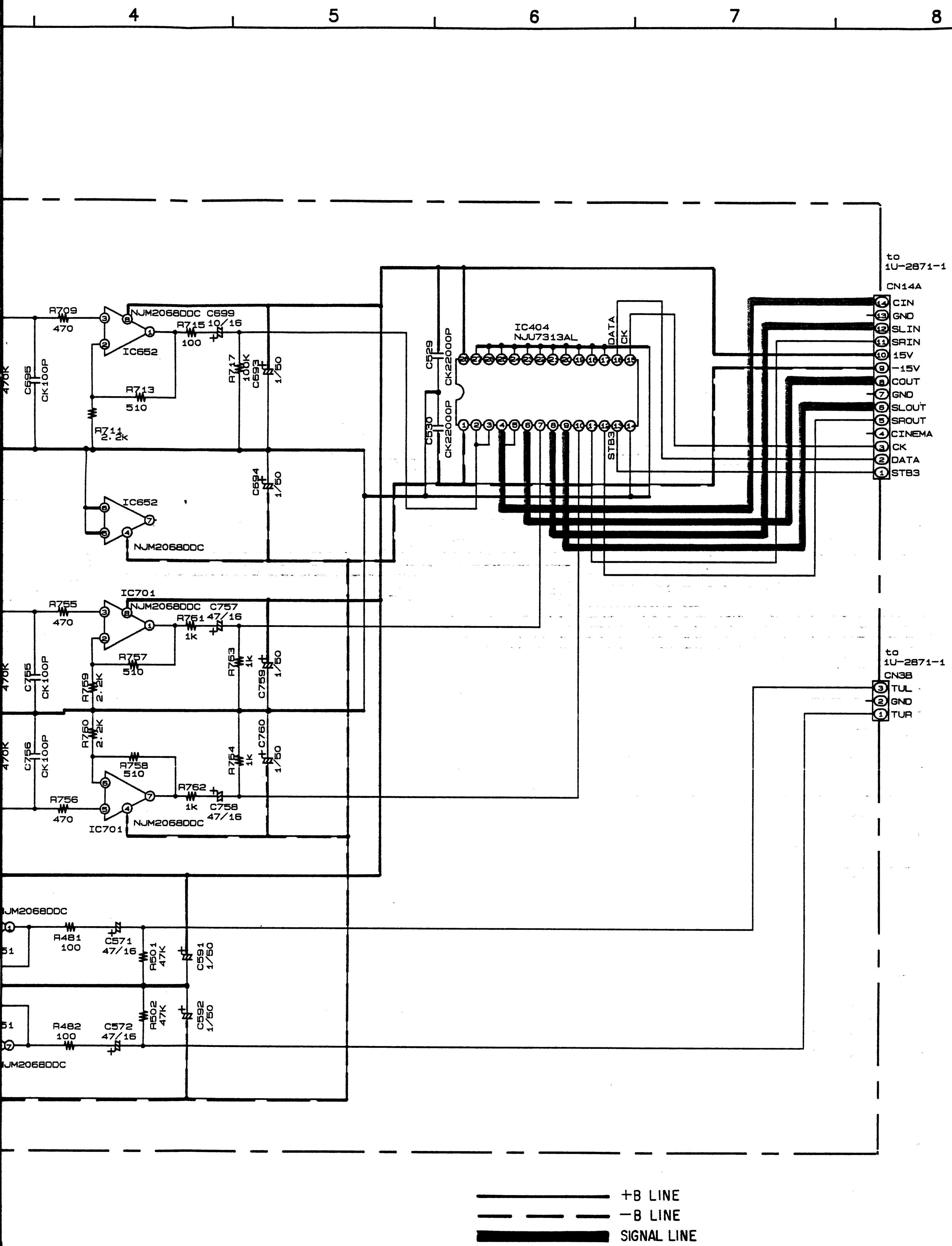

6
7
8
9
10
11
DSP_SCK
DSP_RS/MO
DSP_RS/ZR
DSP_SO/MO
DSP_SO/ZR
DSP_SI
DSP_SS/MO
DSP_SS/ZR
to_2875-2
D5V-1
D5V-2
D5V-3
DGND
to_2875-3
C152
0.01Z
IC5
HD74HC14FP
R20
47
1U-2928-1
DSP_UNIT 2/2
R169
4.7K
C94
0.01Z
IC9
TC74HC00AF
R41
R91
47
C36
0.1Z
C35
0.1Z
C93
820P
C34
0.1Z
SVCC
MODC
MODB
MODA
/RESET
MISO/SDA
SGND
JVCC
PCAP
JGND
PINIT
QGND
QVCC
EXTAL
SCK/SCL
MA0
MA1
MA2
MA3
AGND
R63
47
R64
47
MOSI/HA0
/SS/HA2
/HREQ
SGND
R57
47
SDO2
R56
47
SDO1
R55
47
SDO0
0.1Z
SVCC
SCKT
WST
SCKR
C25
0.1Z
QGND
QVCC
SGND
WSR
SDI1
SDI0
DSO
DSI/OS0
DSCK/OS1
IC2
DSP56004
MA4
MA5
MA6
C33
0.1Z
AVCC
MA7
AGND
MA8
MA9
MA10
MA11
QGND
QVCC
C32
0.1Z
AGND
MA12
C31
0.1Z
AVCC
MA13
MA14
/MCS3
/MCS0
AGND
/DR
MD7
MD6
MD5
MD4
DGND
MD3
MD2
MD1
DVCC
MD0
DGND
GPIO3
GPIO2
GPIO1
GPIO0
MRD
MWR
MRAS
MCAS
C30
0.1Z
R46
0
5.0V
LF4
C127
0.01Z
GND2
-G-531PH
5.0V
LF3
MRD
MCAS
MD6
MD7
VSS
MD4
MD5
MWR
MRAS
MA0
MA1
MA2
MA3
VDD
MA4
MA5
MA6
MA7
MA8
C27
0.01Z
C128
0.01Z
GND2
IC7
TC514256BZL-60
262144*4bit_DRAM_60ns
MRD
MCAS
MD2
MD3
VSS
MD0
MD1
MWR
MRAS
MA0
MA1
MA2
MA3
VDD
MA4
MA5
MA6
MA7
MA8
C28
0.01Z
IC8
TC514256BZL-60
262144*4bit_DRAM_60ns

+B LINE
SIGNAL LINE

SCHEMATIC DIAGRAM - (7/11)

1
2
3
4
5


1U-2874-4 HI-VISION UNIT
HIVISION CENTER
JK701
C697 10/16
R709 470
NJM2068DDC
C699 10/16
R715 100
IC652
R703 62K
R707 470K
C695 CK100P
R713 510
R711 2.2K
R717 100K
C693 1/50
C529 CK22000P
C530 CK22000P
C694 1/50
IC652
NJM2068DDC
HIVISION REARL JK702
C753 10/16
R755 470
IC701
NJM2068DDC
C757 47/16
R761 1K
R751 200K
R753 470K
C755 CK100P
R759 2.2K
R757 510
R763 1K
C759 1/50
R752 200K
R754 470K
C756 CK100P
R760 2.2K
R758 510
R764 1K
C760 1/50
R762 1K
C758 47/16
HIVISION REARR JK702
C754 10/16
R756 470
IC701
NJM2068DDC
JK702
L
JK702
C421 10/16
R461 470
NJM2068DDC
R421 62K
R441 470K
C441 CK100P
IC451
R481 100
C571 47/16
R501 47K
C591 1/50
TUNER
R422 62K
R442 470K
C442 CK100P
IC451
R482 100
C572 47/16
R502 47K
C592 1/50
JK702
R
C422 10/16
R462 470
NJM2068DDC


4
5
6
7
8
to 1U-2871-1
CN14A
14 CIN
13 GND
12 SLIN
11 SRIN
10 15V
9 −15V
8 COUT
7 GND
6 SLOUT
5 SROUT
4 CINEMA
3 CK
2 DATA
1 STB3
IC404
NJU7313AL
DATA
CK
STB3
C529 CK22000P
C530 CK22000P
R709 470
NJM2068DDC
C699 10/16
R715 100
IC652
R717 100K
C693 1/50
C695 CK100P
R713 510
R711 2.2k
470K
C694 1/50
IC652
NJM2068DDC
IC701
R755 470
NJM2068DDC
C757 47/16
R751 1K
R757 510
R763 1K
C759 1/50
C755 CK100P
R759 2.2K
R760 2.2K
C756 CK100P
R758 510
R764 1K
C760 1/50
R762 1K
C758 47/16
R756 470
IC701
NJM2068DDC
to 1U-2871-1
CN38
3 TUL
2 GND
1 TUR
JM2068DDC
R481 100
C571 47/16
R501 47K
C591 1/50
51
R482 100
C572 47/16
R502 47K
C592 1/50
JM2068DDC
+B LINE
−B LINE
SIGNAL LINE

9

WARNING:
Parts marked with t
characteristics.
Use ONLY replacem
manufacturer.

CAUTION:
Before returning the
make either (1) a le
chassis resistance
0.5 milliamps, or if t
side of the power co
defective.

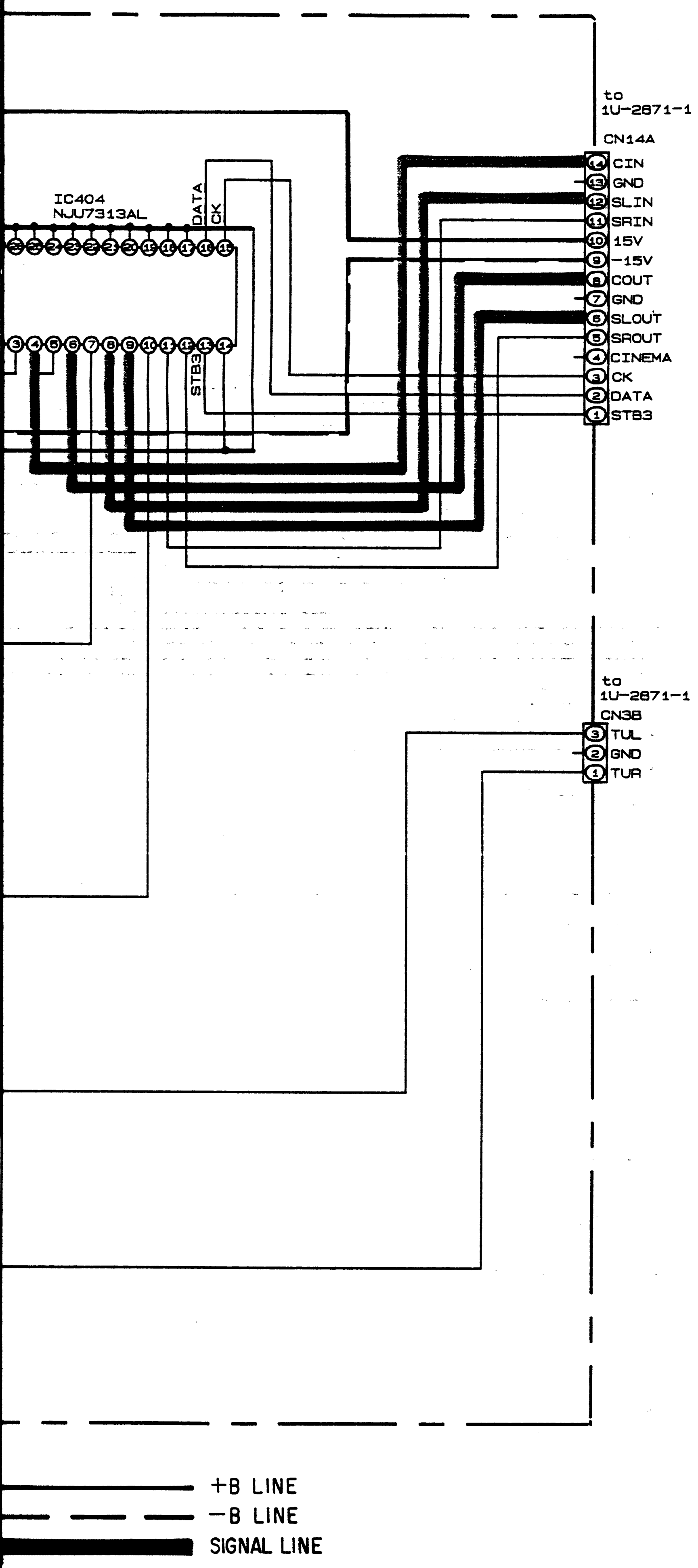
WARNING:
DO NOT return the
is located and corre

NOTES
ALL RESISTANCE
M=1,000,000 OHM

ALL CAPACITANCE
P=MICRO-MICRO

EACH VOLTAGE A
NO SIGNAL INPUT

CIRCUIT AND PAR
WITHOUT PRIOR


IC404
NJU7313AL
DATA
CK
STB3
to
1U-2871-1
CN14A
CIN
GND
SLIN
SRIN
15V
−15V
COUT
GND
SLOUT
SROUT
CINEMA
CK
DATA
STB3
to
1U-2871-1
CN3B
TUL
GND
TUR
+B LINE
−B LINE
SIGNAL LINE

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

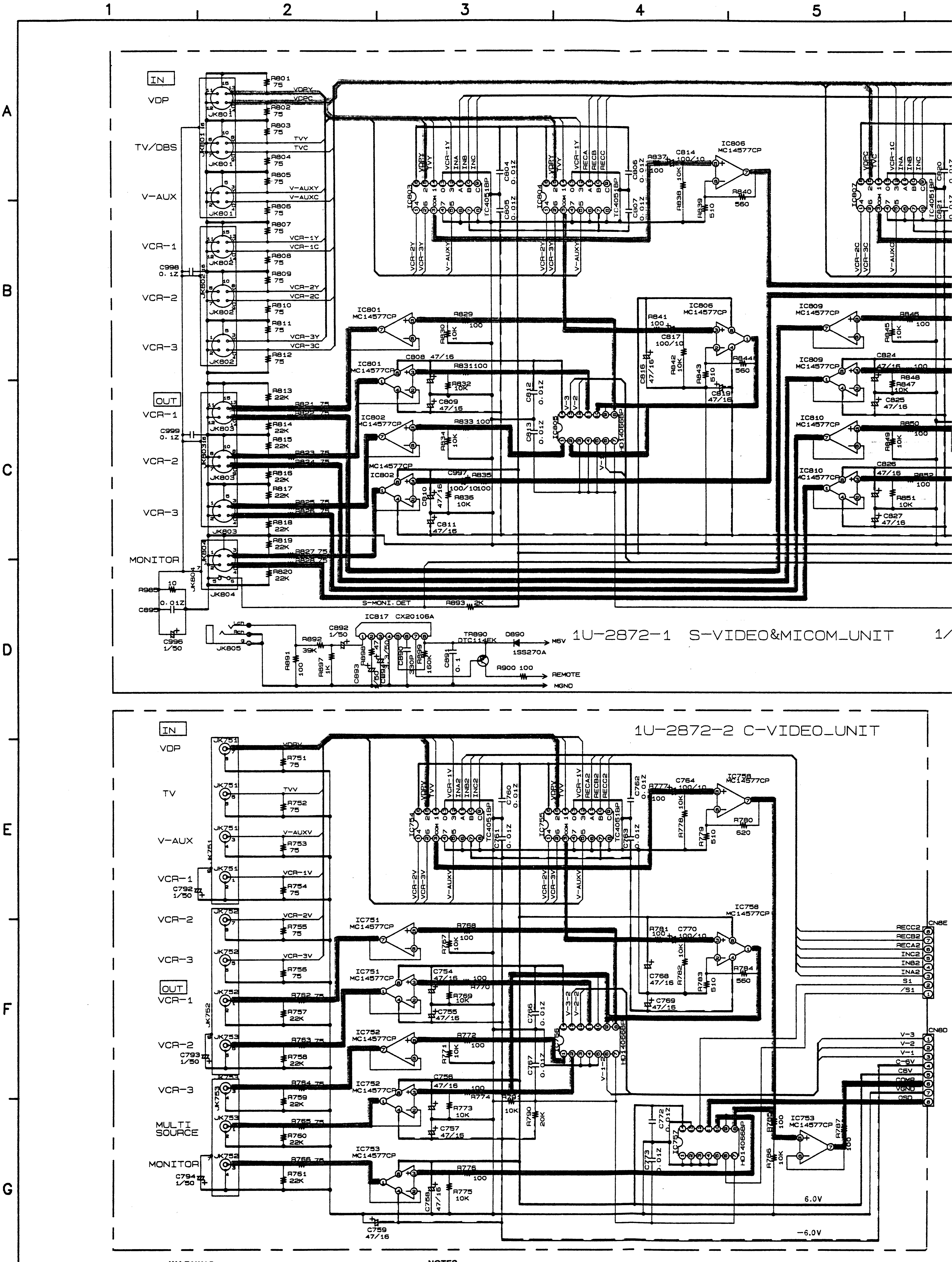
NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHEMATIC DIAGRAM - (8/11)


1
2
3
4
5
A
B
C
D
E
F
G
H
IN
VDP
TV/DBS
V-AUX
VCR-1
VCR-2
VCR-3
OUT
VCR-1
VCR-2
VCR-3
MONITOR
JK801
JK802
JK803
JK804
JK805
IC801 MC14577CP
IC802 MC14577CP
IC803 TC4051BP
IC804 TC4051BP
IC805 HD14066BP
IC806 MC14577CP
IC807 TC4051BP
IC809 MC14577CP
IC810 MC14577CP
IC817 CX20106A
TR890 DTC114EK
D890 1SS270A
S-MONI. DET
M6V
REMOTE
MGND
1U-2872-1 S-VIDEO&MICOM_UNIT
IN
VDP
TV
V-AUX
VCR-1
VCR-2
VCR-3
OUT
VCR-1
VCR-2
VCR-3
MULTI SOURCE
MONITOR
JK751
JK752
JK753
IC751 MC14577CP
IC752 MC14577CP
IC753 MC14577CP
IC754 TC4051BP
IC755 TC4051BP
IC756 HD14066BP
IC757 HD14066BP
IC758 MC14577CP
1U-2872-2 C-VIDEO_UNIT
CN8E
RECC2
RECB2
RECA2
INC2
INB2
INA2
S1
/S1
CN8D
V-3
V-2
V-1
C-6V
C6V
COMP
VGND
OSD
6.0V
-6.0V

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

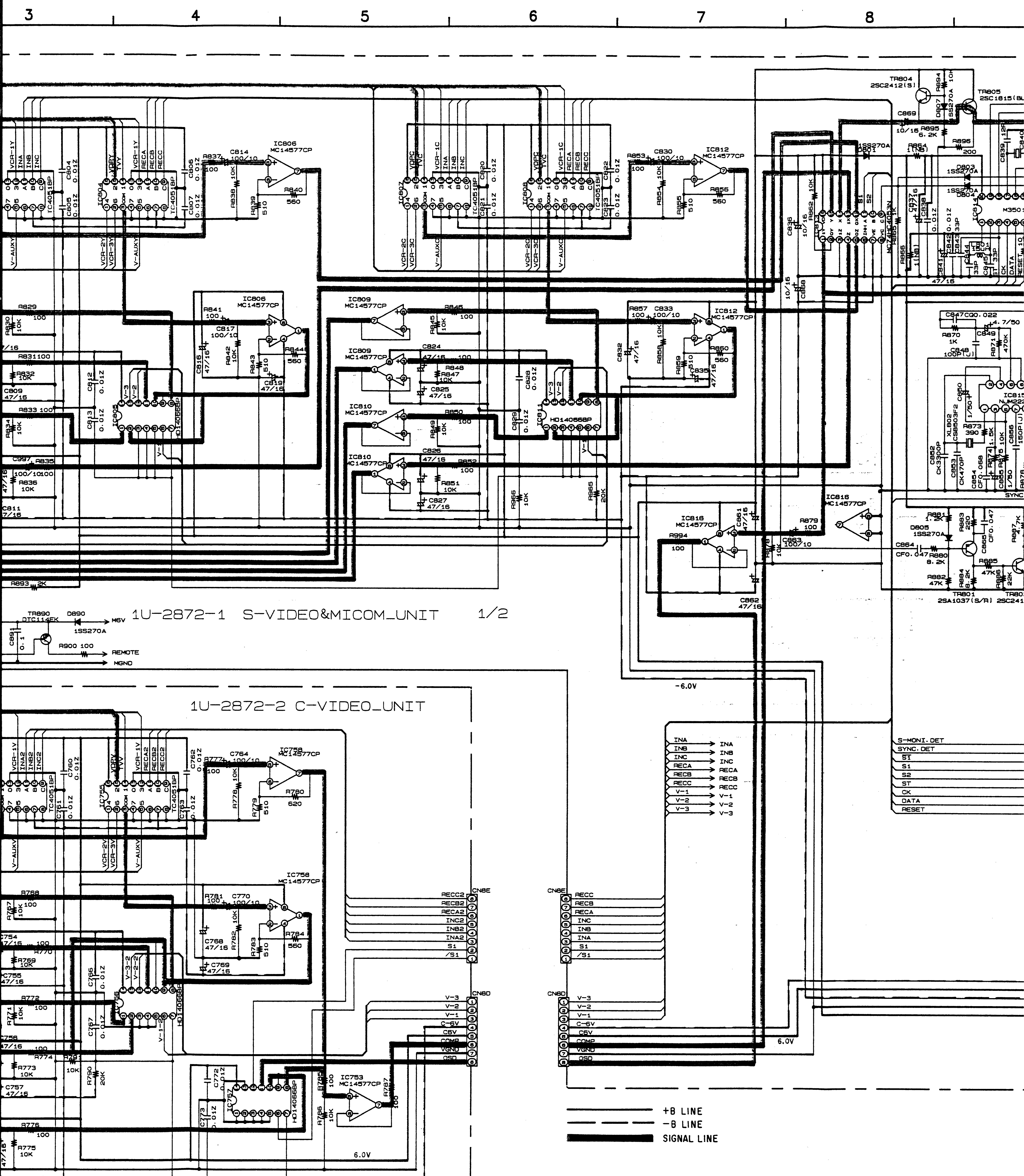
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

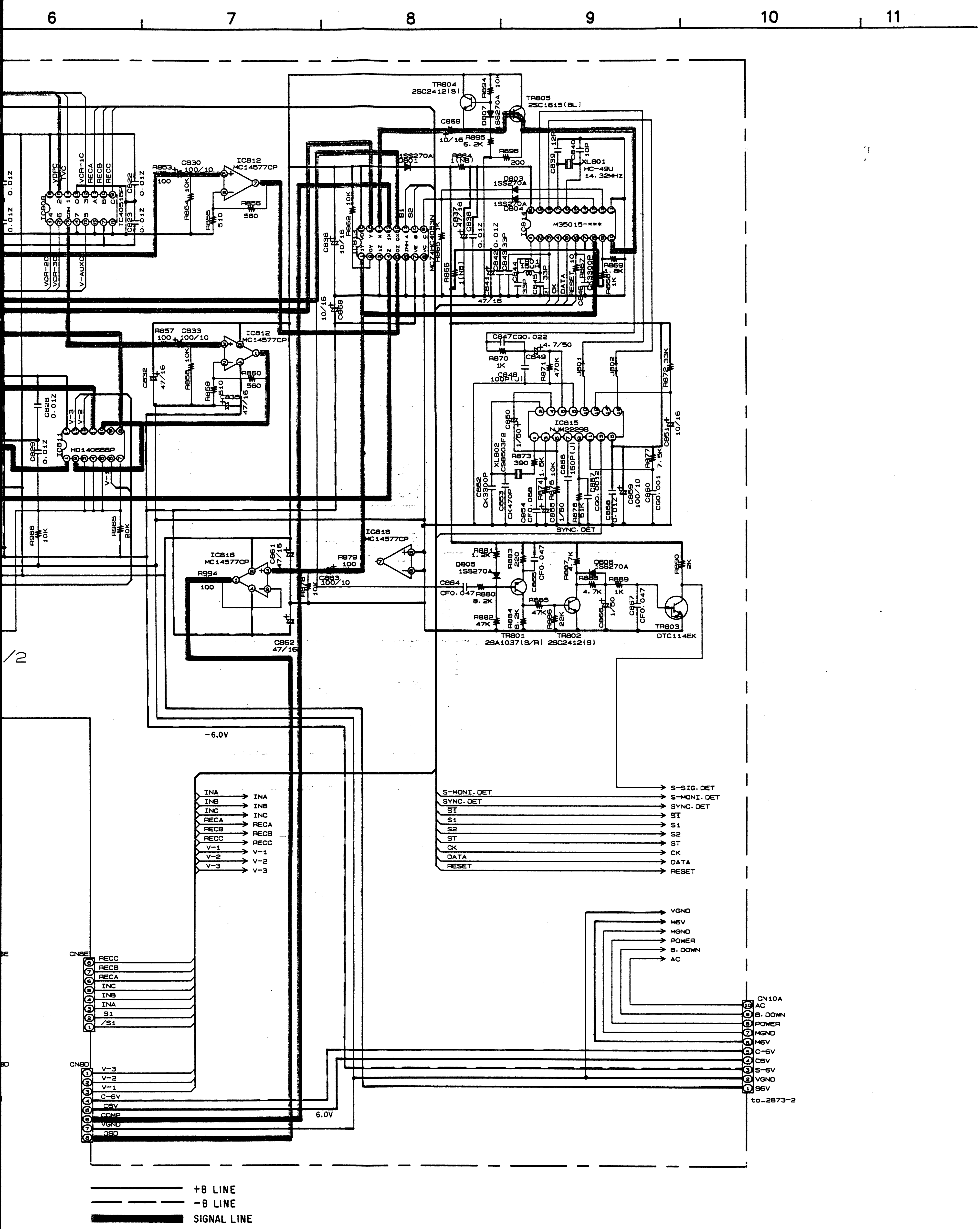
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

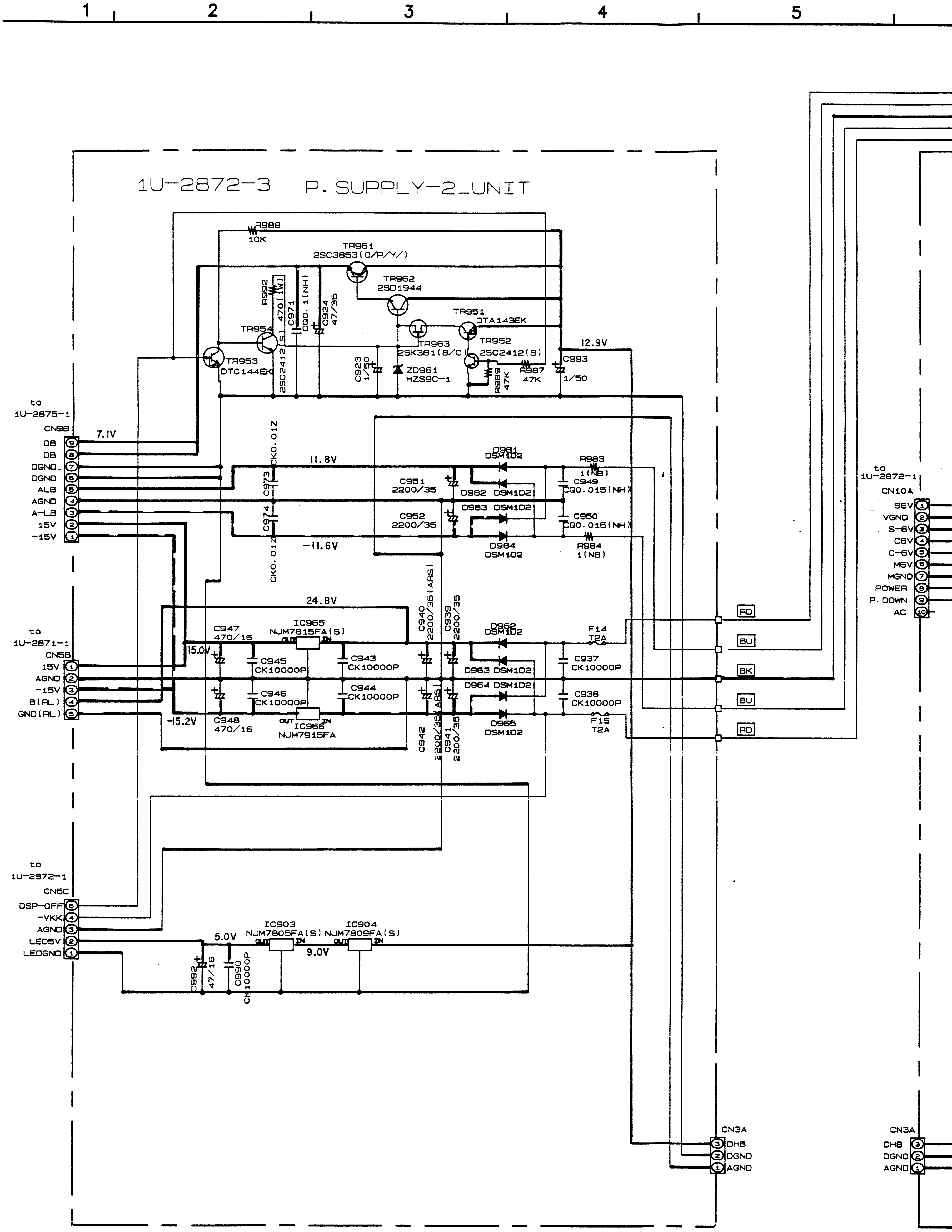


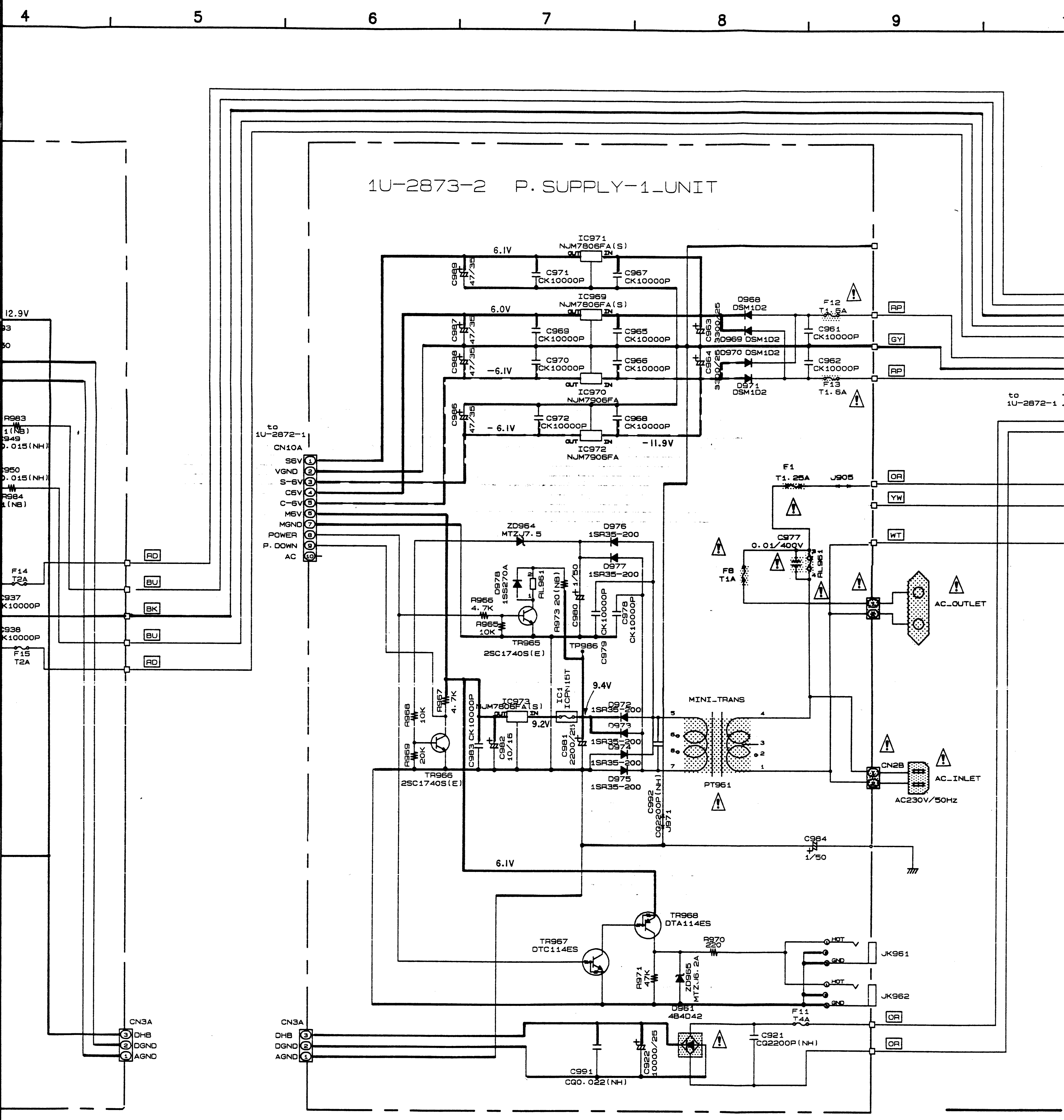
3
4
5
6
7
8
1U-2872-1 S-VIDEO&MICOM_UNIT 1/2
1U-2872-2 C-VIDEO_UNIT
IC806 MC14577CP
IC812 MC14577CP
IC809 MC14577CP
IC810 MC14577CP
IC816 MC14577CP
IC758 MC14577CP
IC753 MC14577CP
IC804 TC4051BP
IC807 TC4051BP
IC808 TC4051BP
IC805 HD14066BP
IC811 HD14066BP
IC813 MC74HC4053N
TR804 2SC2412(S)
TR805 2SC1815(BL)
TR801 2SA1037(S/R)
TR890 DTC114EK
D890 1SS270A
D801 1SS270A
D803 1SS270A
D804 1SS270A
D805 1SS270A
XL802 CSB503F2
M6V
REMOTE
MGND
-6.0V
6.0V
CN8E
CN8D
RECC2
RECB2
RECA2
INC2
INB2
INA2
S1
/S1
RECC
RECB
RECA
INC
INB
INA
V-3
V-2
V-1
C-6V
C6V
COMP
VGND
OSD
S-MONI.DET
SYNC.DET
ST
CK
DATA
RESET
+B LINE
-B LINE
SIGNAL LINE

OTES
LL RESISTANCE VALUES IN OHM. k=1,000 OHM,
=1,000,000 OHM
LL CAPACITANCE VALUES IN MICRO FARAD.
=MICRO-MICRO FARAD
ACH VOLTAGE AND CURRENT ARE MEASURED AT
O SIGNAL INPUT CONDITION.
IRCUIT AND PARTS ARE SUBJECT TO CHANGE
ITHOUT PRIOR NOTICE.


6
7
8
9
10
11
IC808
TC4051BP
VDPC
VCR-1C
RECA
RECB
RECC
VCR-2C
VCR-3C
V-AUXC
C822 0.01Z
C823 0.01Z
R853 100
C830 100/10
IC812 MC14577CP
R854 10K
R855 510
R856 560
R857 100
C833 100/10
R858 10K
R859 510
R860 560
C832 47/16
C835 47/16
C828 0.01Z
C829 0.01Z
IC811 HD14066BP
V-3
V-2
V-1
R966 10K
R965 20K
TR804 2SC2412(S)
R894 10K
D807 1SS270A
TR805 2SC1815(BL)
C869 10/16
R895 6.2K
R896 200
D801 1SS270A
R864 1(NB)
D803 1SS270A
D804 1SS270A
C839 12P
C840 10P
XL801 HC-49U 14.32MHz
IC814 M35015-***
IC813 MC74HC4053N
R862 10K
R865 1K
C836 10/16
C856 10/16
R866 1(NB)
C837 16
C838 0.01Z
C841 47/16
C842 33P
C843 33P
C844 33P
C845 33P
CK
DATA
RESET
C846 47/16
R867 10
C3300P
R868 1K
R869 8K
S1
S2
C847 CQ0.022
R870 1K
C849 4.7/50
R871 470K
C848 100P(J)
JP01
JP02
R872 33K
IC815 LM2229S
C850 1/50
XL802 CSB503F2
R873 390
R874 1.5K
R875 10K
C856 150P(J)
C852 CK3300P
C853 CK470P
C854 CF0.068
C855 1/50
R876 51K
C857 CQ0.0012
C858 0.01Z
C859 100/10
C860 CQ0.001
R877 7.5K
C851 10/16
SYNC. DET
IC816 MC14577CP
R994 100
C861 47/16
C862 47/16
R878 10K
C863 100/10
R879 100
R881 1.2K
R883 220
C865 CF0.047
D805 1SS270A
C864 CF0.047
R880 8.2K
R882 47K
R884 8.2K
R885 47K
R886 22K
R887 4.7K
D806 1SS270A
R888 4.7K
R889 1K
C866 1/50
C867 CF0.047
R890 2K
TR801 2SA1037(S/R)
TR802 2SC2412(S)
TR803 DTC114EK
-6.0V
6.0V
INA
INB
INC
RECA
RECB
RECC
V-1
V-2
V-3
S-MONI. DET
SYNC. DET
/S1
S1
S2
ST
CK
DATA
RESET
S-SIG. DET
S-MONI. DET
SYNC. DET
VGND
M6V
MGND
POWER
B. DOWN
AC
CN8E
RECC
RECB
RECA
INC
INB
INA
S1
/S1
CN8D
V-3
V-2
V-1
C-6V
C6V
COMP
VGND
OSD
CN10A
AC
B. DOWN
POWER
MGND
M6V
C-6V
C6V
S-6V
VGND
S6V
to_2873-2
/2
+B LINE
-B LINE
SIGNAL LINE

SCHEMATIC DIAGRAM - (9/11)


1
2
3
4
5
1U-2872-3 P. SUPPLY-2_UNIT
R988
10K
TR961
2SC3853(O/P/Y/)
TR962
2SD1944
R992
470(1W)
C971
CQ0.1(NH)
C924
47/35
TR954
TR951
DTA143EK
TR963
2SK381(B/C)
TR952
2SC2412(S)
12.9V
TR953
DTC144EK
2SC2412(S)
C923
1/50
ZD961
HZS9C-1
R989
47K
R987
47K
C993
1/50
to
1U-2875-1
CN98
7.1V
D8
D8
DGND
DGND
ALB
AGND
A-LB
15V
-15V
CK0.012
11.8V
C973
C974
CK0.012
-11.6V
D981
DSM1D2
R983
1(NB)
C949
CQ0.015(NH)
C951
2200/35
D982 DSM1D2
D983 DSM1D2
C952
2200/35
C950
CQ0.015(NH)
D984
DSM1D2
R984
1(NB)
24.8V
C940
2200/35(ARS)
C939
2200/35
to
1U-2871-1
CN5B
15V
AGND
-15V
B(RL)
GND(RL)
15.0V
C947
470/16
IC965
NJM7815FA(S)
OUT
IN
C945
CK10000P
C943
CK10000P
D962
DSM1D2
F14
T2A
C937
CK10000P
D963 DSM1D2
D964 DSM1D2
C946
CK10000P
C944
CK10000P
C938
CK10000P
-15.2V
C948
470/16
OUT
IN
IC966
NJM7915FA
C942
2200/35(ARS)
C941
2200/35
D965
DSM1D2
F15
T2A
RD
BU
BK
BU
RD
to
1U-2872-1
CN10A
S6V
VGND
S-6V
C6V
C-6V
M6V
MGND
POWER
P.DOWN
AC
to
1U-2872-1
CN5C
DSP-OFF
-VKK
AGND
LED5V
LEDGND
IC903
NJM7805FA(S)
IC904
NJM7809FA(S)
5.0V
OUT
IN
OUT
IN
9.0V
C992
47/16
C990
CK10000P
CN3A
DHB
DGND
AGND
CN3A
DHB
DGND
AGND

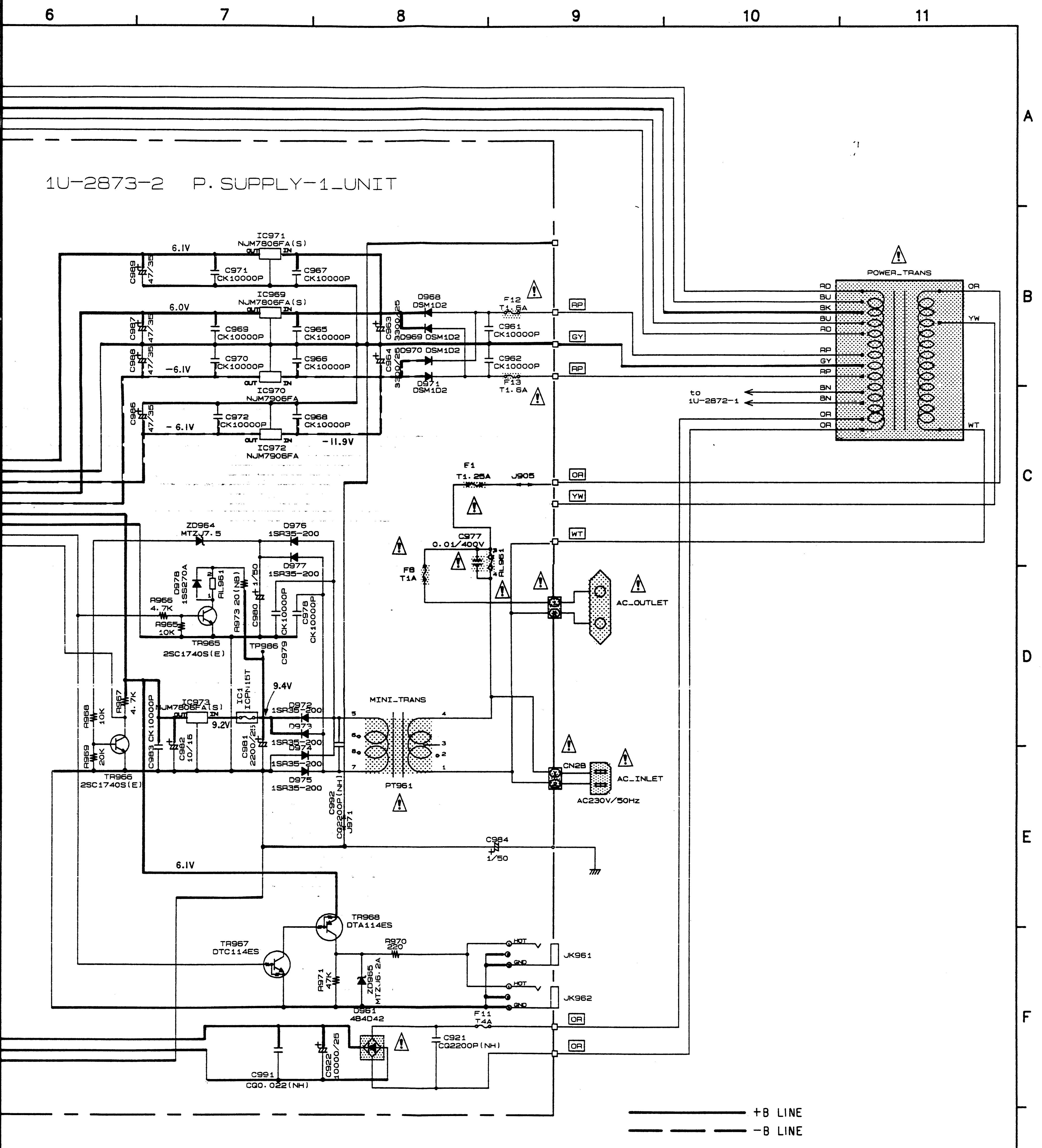

4
5
6
7
8
9
1U-2873-2 P. SUPPLY-1_UNIT
IC971
NJM7806FA(S)
6.1V
C969 47/35
C971 CK10000P
C967 CK10000P
IC969
NJM7806FA(S)
6.0V
C987 47/35
C969 CK10000P
C965 CK10000P
C988 47/35
-6.1V
C970 CK10000P
C966 CK10000P
IC970
NJM7906FA
C986 47/35
- 6.1V
C972 CK10000P
C968 CK10000P
IC972
NJM7906FA
-11.9V
C963 3300/25
C964 3300/25
D968 DSM1D2
D969 DSM1D2
D970 DSM1D2
D971 DSM1D2
F12 T1.6A
F13 T1.6A
C961 CK10000P
C962 CK10000P
RP
GY
RP
to 1U-2872-1
to 1U-2872-1
CN10A
S6V 1
VGND 2
S-6V 3
C6V 4
C-6V 5
M6V 6
MGND 7
POWER 8
P. DOWN 9
AC 10
F1 T1.25A
J905
OR
YW
WT
C977 0.01/400V
F8 T1A
RL961
AC_OUTLET
ZD964 MTZJ7.5
D976 1SR35-200
D977 1SR35-200
D978 1SS270A
RL961
R966 4.7K
R965 10K
TR965 2SC1740S(E)
R973 20(NB)
C980 1/50
C979 CK10000P
C978 CK10000P
TP986
IC1 ICPN15T
9.4V
R967 4.7K
R968 10K
R969 20K
TR966 2SC1740S(E)
C983 CK10000P
IC973 NJM7808FA(S)
C982 10/16
9.2V
C981 2200/25
D972 1SR35-200
D973
D974
1SR35-200
1SR35-200
D975 1SR35-200
MINI_TRANS
PT961
C992 CQ2200P(NH)
J971
CN2B
AC_INLET
AC230V/50Hz
C984 1/50
6.1V
TR968 DTA114ES
TR967 DTC114ES
R970 220
R971 47K
ZD965 MTZJ6.2A
HOT
GND
JK961
HOT
GND
JK962
D961 4B4D42
F11 T4A
OR
OR
CN3A
DHB 3
DGND 2
AGND 1
C991 CQ0.022(NH)
C922 10000/25
C921 CQ2200P(NH)
12.9V
R983 1(NB)
C949 0.015(NH)
C950 0.015(NH)
R984 1(NB)
F14 T2A
C937 CK10000P
C938 CK10000P
F15 T2A
RD
BU
BK
BU
RD
CN3A
DHB 3
DGND 2
AGND 1

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.


6
7
8
9
10
11
A
B
C
D
E
F
1U-2873-2 P. SUPPLY-1_UNIT
IC971
NJM7806FA(S)
OUT
IN
6.1V
C989
47/35
C971
CK10000P
C967
CK10000P
IC969
NJM7806FA(S)
6.0V
C987
47/35
C969
CK10000P
C965
CK10000P
C988
47/35
-6.1V
C970
CK10000P
C966
CK10000P
IC970
NJM7906FA
C986
47/35
- 6.1V
C972
CK10000P
C968
CK10000P
-11.9V
IC972
NJM7906FA
C963
3300/25
C964
3300/25
D968
DSM1D2
D969 DSM1D2
D970 DSM1D2
D971
DSM1D2
F12
T1.6A
F13
T1.6A
C961
CK10000P
C962
CK10000P
RP
GY
RP
POWER_TRANS
RD
BU
BK
BU
RD
RP
GY
RP
BN
BN
OR
OR
OR
YW
WT
to
1U-2872-1
F1
T1.25A
J905
OR
YW
WT
C977
0.01/400V
F8
T1A
RL961
AC_OUTLET
ZD964
MTZJ7.5
D976
1SR35-200
D977
1SR35-200
D978
1SS270A
RL961
R973 20(NB)
C980 1/50
C10000P
C978
CK10000P
R966
4.7K
R965
10K
TR965
2SC1740S(E)
TP986
C979
IC1
ICPN15T
9.4V
R967
4.7K
R968
10K
R969
20K
TR966
2SC1740S(E)
IC973
NJM7806FA(S)
9.2V
C983 CK10000P
C982
10/16
C981
2200/25
D972
1SR35-200
D973
1SR35-200
D974
1SR35-200
D975
1SR35-200
MINI_TRANS
PT961
5
4
6
8
3
2
7
1
C992
CQ2200P(NH)
J971
CN28
AC_INLET
AC230V/50Hz
C984
1/50
6.1V
TR968
DTA114ES
TR967
DTC114ES
R970
220
R971
47K
ZD965
MTZJ6.2A
HOT
GND
HOT
GND
JK961
JK962
D961
4B4D42
F11
T4A
OR
OR
C921
CQ2200P(NH)
C922
10000/25
C991
CQ0.022(NH)
+B LINE
-B LINE

G

H

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

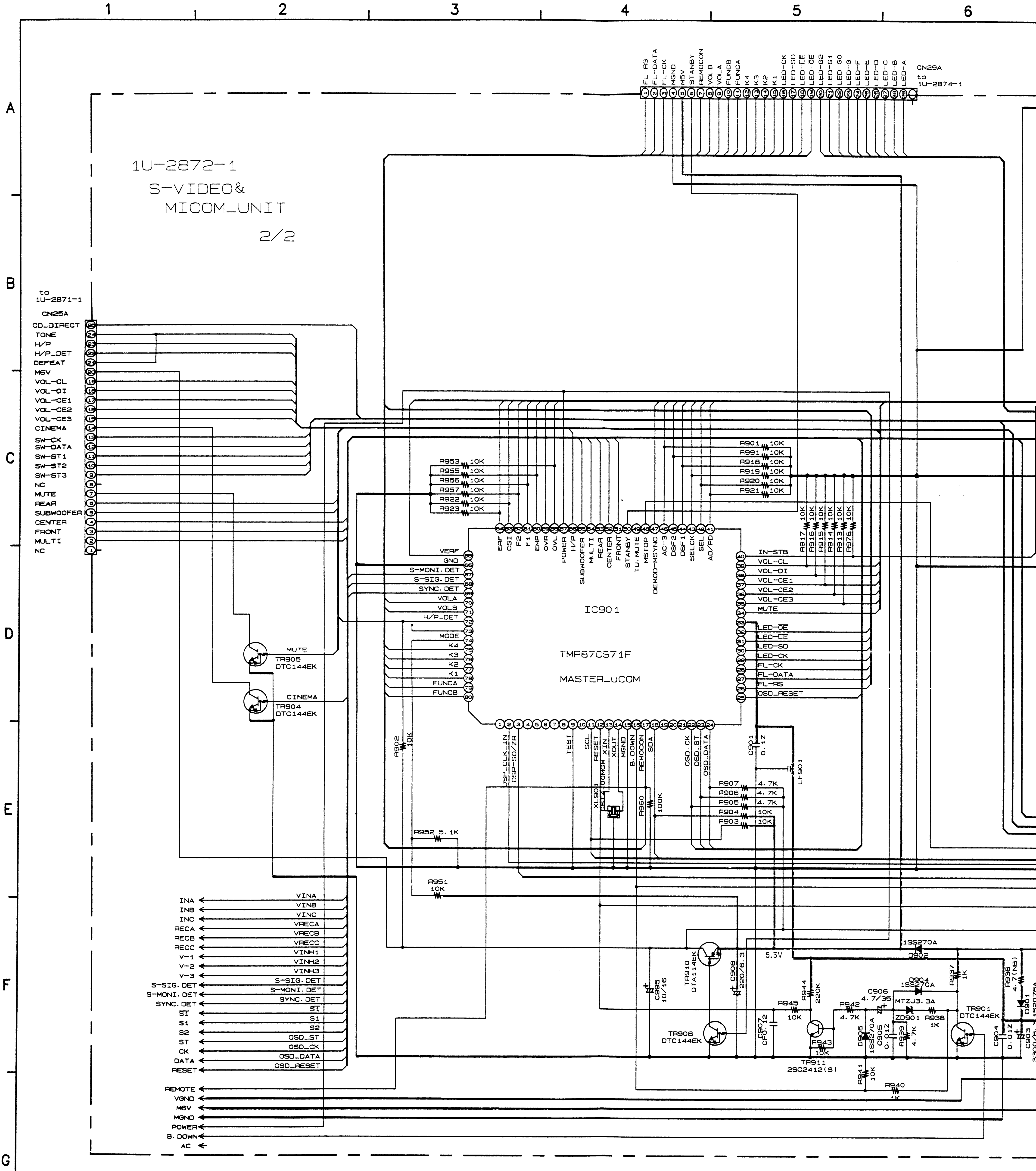
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

SCHEMATIC DIAGRAM - (10/11)


1
2
3
4
5
6
A
B
C
D
E
F
G
1U-2872-1
S-VIDEO&
MICOM_UNIT
2/2
to
1U-2871-1
CN25A
CD_DIRECT
TONE
H/P
H/P_DET
DEFEAT
M6V
VOL-CL
VOL-DI
VOL-CE1
VOL-CE2
VOL-CE3
CINEMA
SW-CK
SW-DATA
SW-ST1
SW-ST2
SW-ST3
NC
MUTE
REAR
SUBWOOFER
CENTER
FRONT
MULTI
NC
CN29A
to
1U-2874-1
FL-RS
FL-DATA
FL-CK
MGND
M5V
STANBY
REMOCON
VOLB
VOLA
FUNCB
FUNCA
K4
K3
K2
K1
LED-CK
LED-SD
LED-LE
LED-OE
LED-G2
LED-G1
LED-G0
LED-G
LED-F
LED-E
LED-D
LED-C
LED-B
LED-A
IC901
TMP87CS71F
MASTER_uCOM
VERF
GND
S-MONI.DET
S-SIG.DET
SYNC.DET
VOLA
VOLB
H/P_DET
MODE
K4
K3
K2
K1
FUNCA
FUNCB
EAF
CSI
F2
F1
EMP
OVR
OVL
POWER
H/P
SUBWOOFER
MULTI
REAR
CENTER
FRONT
STANBY
TU.MUTE
MSTOP
DEMOD-MSYNC
AC-3
DSF2
DSF1
SELCK
SEL
AD/PD
IN-STB
VOL-CL
VOL-DI
VOL-CE1
VOL-CE2
VOL-CE3
MUTE
LED-OE
LED-LE
LED-SD
LED-CK
FL-CK
FL-DATA
FL-RS
OSD_RESET
DSP_CLK_IN
DSP-SO/ZR
TEST
SCL
RESET
XIN
XOUT
MGND
B.DOWN
REMOCON
SDA
OSD_CK
OSD_ST
OSD_DATA
R953 10K
R955 10K
R956 10K
R957 10K
R922 10K
R923 10K
R901 10K
R991 10K
R918 10K
R919 10K
R920 10K
R921 10K
R917 10K
R916 10K
R915 10K
R914 10K
R913 10K
R976 10K
MUTE
TR905
DTC144EK
CINEMA
TR904
DTC144EK
R902 10K
C901 0.1Z
LF901
XL901 CST4.00MGW
R960 100K
R907 4.7K
R906 4.7K
R905 4.7K
R904 10K
R903 10K
R952 5.1K
R951 10K
INA
INB
INC
RECA
RECB
RECC
V-1
V-2
V-3
S-SIG.DET
S-MONI.DET
SYNC.DET
S1
S1
S2
ST
CK
DATA
RESET
VINA
VINB
VINC
VRECA
VRECB
VRECC
VINH1
VINH2
VINH3
S-SIG.DET
S-MONI.DET
SYNC.DET
S1
S1
S2
OSD_ST
OSD_CK
OSD_DATA
OSD_RESET
REMOTE
VGND
M6V
MGND
POWER
B.DOWN
AC
C995 10/16
TR910 DTA114EK
C908 220/6.3
5.3V
1SS270A
D902
TR908
DTC144EK
C907 CF0.12
R945 10K
R944 220K
R943 10K
TR911
2SC2412(S)
R942 4.7K
C906 4.7/35
D904 1SS270A
R937 1K
R936 4.7(NB)
MTZJ3.3A
ZD901
R938 1K
TR901
DTC144EK
D905 1SS270A
C905 0.012
R939 4.7K
C904 0.1Z
C903 3300/6.3
D901 1SS270A
R941 10K
R940 1K

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

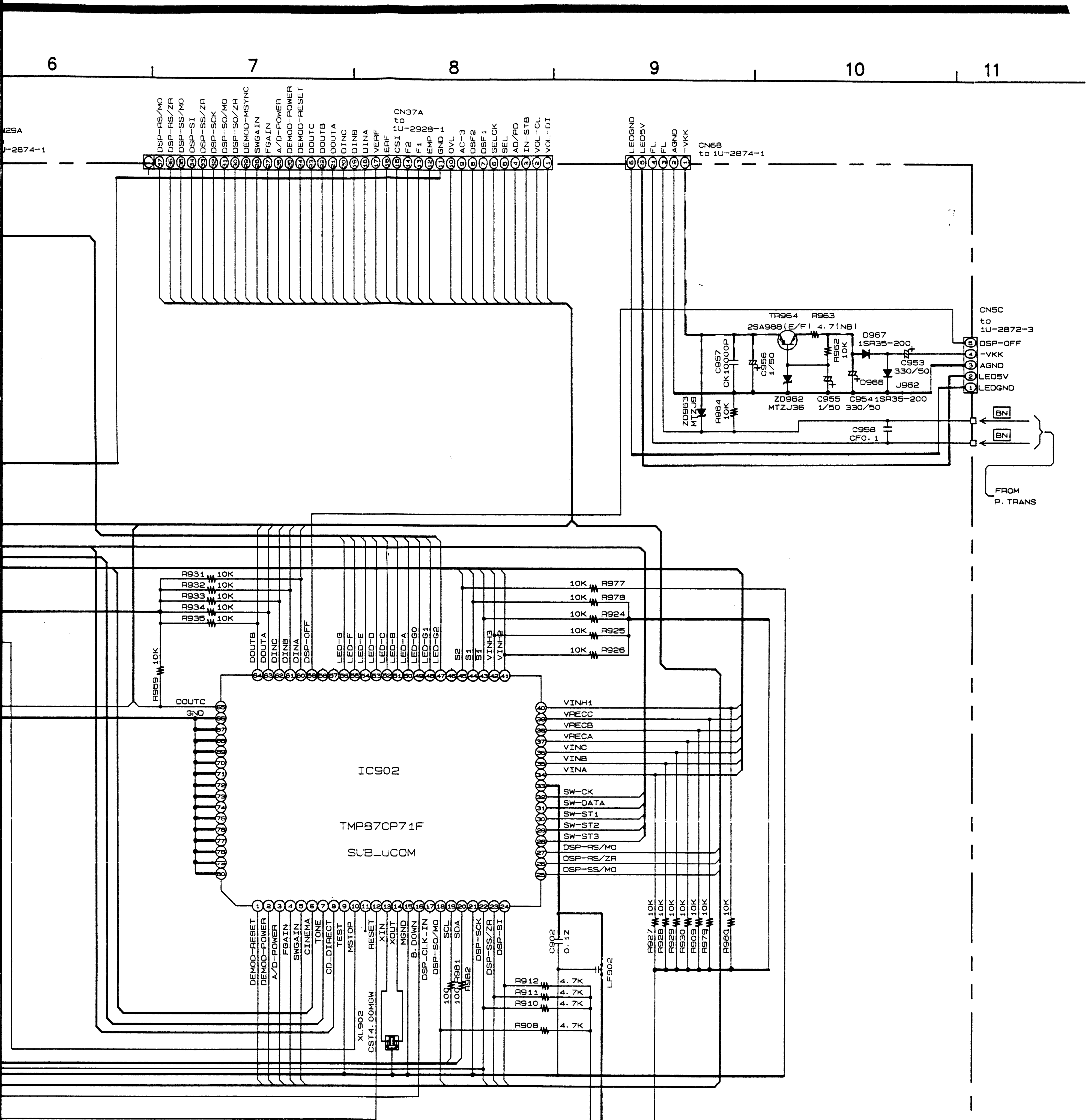
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

NOTES
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

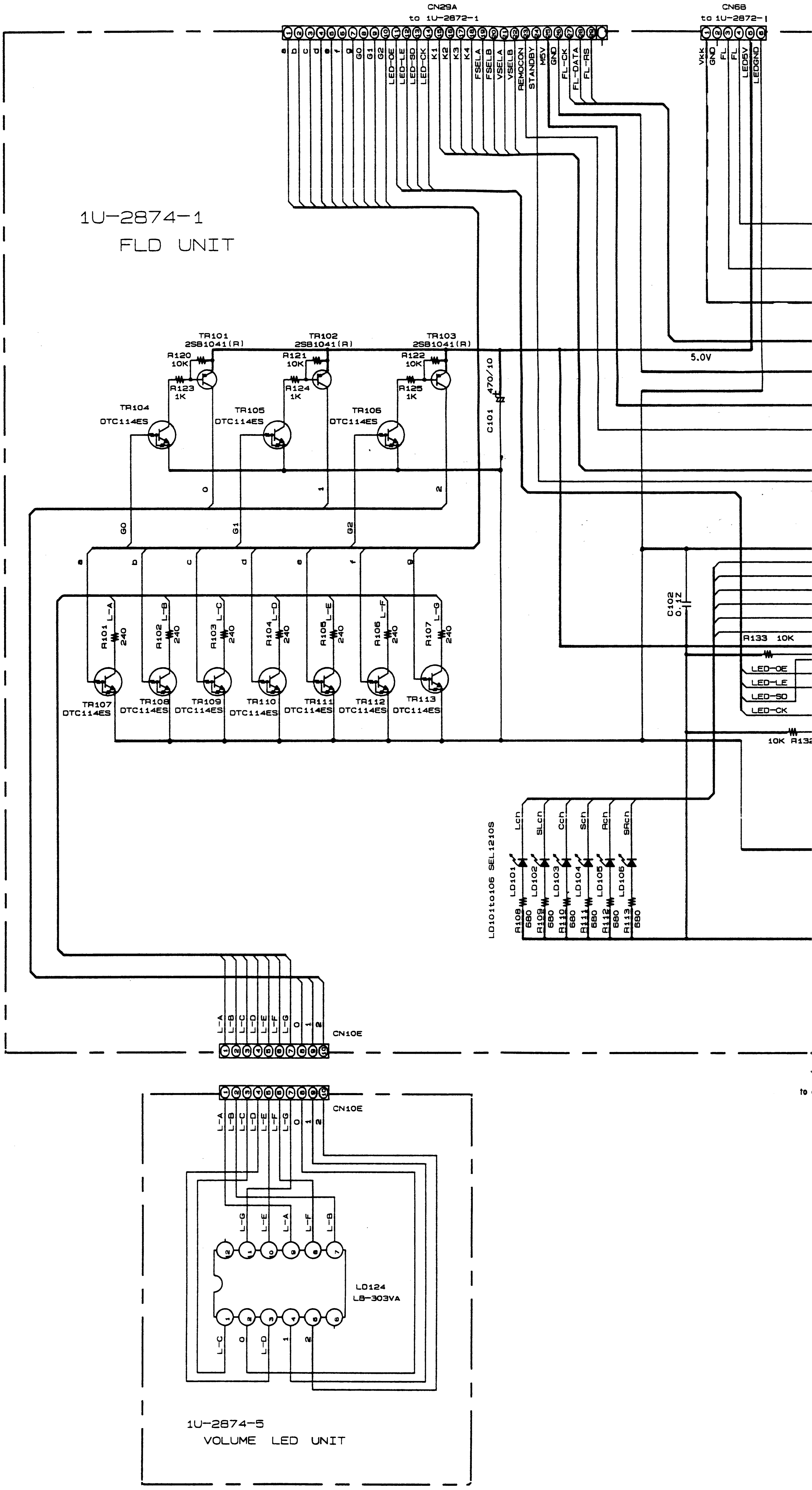
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.


6
7
8
9
10
11
CN37A
to 1U-2928-1
DSP-RS/MO
DSP-RS/ZR
DSP-SS/MO
DSP-SI
DSP-SS/ZR
DSP-SCK
DSP-SO/MO
DSP-SO/ZR
DEMOD-MSYNC
SWGAIN
FGAIN
A/D-POWER
DEMOD-POWER
DEMOD-RESET
DOUTC
DOUTB
DOUTA
DINC
DINB
DINA
VERF
ERF
CSI
F2
F1
EMP
GND
OVL
AC-3
DSF2
DSF1
SELCK
SEL
AD/PD
IN-STB
VOL-CL
VOL-DI
LEDGND
LED5V
FL
FL
AGND
-VKK
CN6B
to 1U-2874-1
CN5C
to 1U-2872-3
DSP-OFF
-VKK
AGND
LED5V
LEDGND
TR964
2SA988(E/F)
R963
4.7(NB)
D967
1SR35-200
C957
CK10000P
C956
1/50
R962
10K
C953
330/50
D966
J962
ZD963
MTZJ9
R964
10K
ZD962
MTZJ36
C955
1/50
C954
330/50
1SR35-200
C958
CF0.1
BN
BN
FROM
P.TRANS
R931 10K
R932 10K
R933 10K
R934 10K
R935 10K
R959 10K
DOUTB
DOUTA
DINC
DINB
DINA
DSP-OFF
LED-G
LED-F
LED-E
LED-D
LED-C
LED-B
LED-A
LED-G0
LED-G1
LED-G2
S2
S1
S1
VINH3
VINH2
10K R977
10K R978
10K R924
10K R925
10K R926
DOUTC
GND
IC902
TMP87CP71F
SUB_uCOM
VINH1
VRECC
VRECB
VRECA
VINC
VINB
VINA
SW-CK
SW-DATA
SW-ST1
SW-ST2
SW-ST3
DSP-RS/MO
DSP-RS/ZR
DSP-SS/MO
DEMOD-RESET
DEMOD-POWER
A/D-POWER
FGAIN
SWGAIN
CINEMA
TONE
CD_DIRECT
TEST
MSTOP
RESET
XIN
XOUT
MGND
B.DOWN
DSP-CLK-IN
DSP-SO/MO
SCL
SDA
DSP-SCK
DSP-SS/ZR
DSP-SI
XL902
CST4.00MGW
R981 100
R982 100
C902
0.1Z
LF902
R912 4.7K
R911 4.7K
R910 4.7K
R908 4.7K
R927 10K
R928 10K
R929 10K
R930 10K
R909 10K
R979 10K
R980 10K
R937 1K
R936 4.7(NB)
D901 1S2076A
TR901 DTC144EK
R938 1K
C904 0.1Z
C903 3300/6.3
6.0V
J901
5.3V
N29A
1U-2874-1
70A
3A

+B LINE
-B LINE

SCHEMATIC DIAGRAM - (11/11)


1
2
3
4
5
CN29A
to 1U-2872-1
a b c d e f g G0 G1 G2 LED-OE LED-LE LED-SD LED-CK K1 K2 K3 K4 FSELA FSELB VSELA VSELB REMOCON STANDBY M5V GND FL-CK FL-DATA FL-RS
CN6B
to 1U-2872-1
VKK GND FL FL LED5V LEDGND
1U-2874-1
FLD UNIT
TR101 2SB1041(R)
TR102 2SB1041(R)
TR103 2SB1041(R)
R120 10K
R121 10K
R122 10K
R123 1K
R124 1K
R125 1K
TR104 DTC114ES
TR105 DTC114ES
TR106 DTC114ES
C101 470/10
5.0V
C102 0.1Z
R133 10K
LED-OE
LED-LE
LED-SD
LED-CK
10K R132
R101 L-A 240
R102 L-B 240
R103 L-C 240
R104 L-D 240
R105 L-E 240
R106 L-F 240
R107 L-G 240
TR107 DTC114ES
TR108 DTC114ES
TR109 DTC114ES
TR110 DTC114ES
TR111 DTC114ES
TR112 DTC114ES
TR113 DTC114ES
LD101to106 SEL1210S
Lch SLch Cch Sch Rch SRch
LD101 LD102 LD103 LD104 LD105 LD106
R108 680
R109 680
R110 680
R111 680
R112 680
R113 680
L-A L-B L-C L-D L-E L-F L-G 0 1 2
CN10E
LD124
LB-303VA
L-G L-E L-A L-F L-B
L-C 0 L-D 1 2
1U-2874-5
VOLUME LED UNIT

NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

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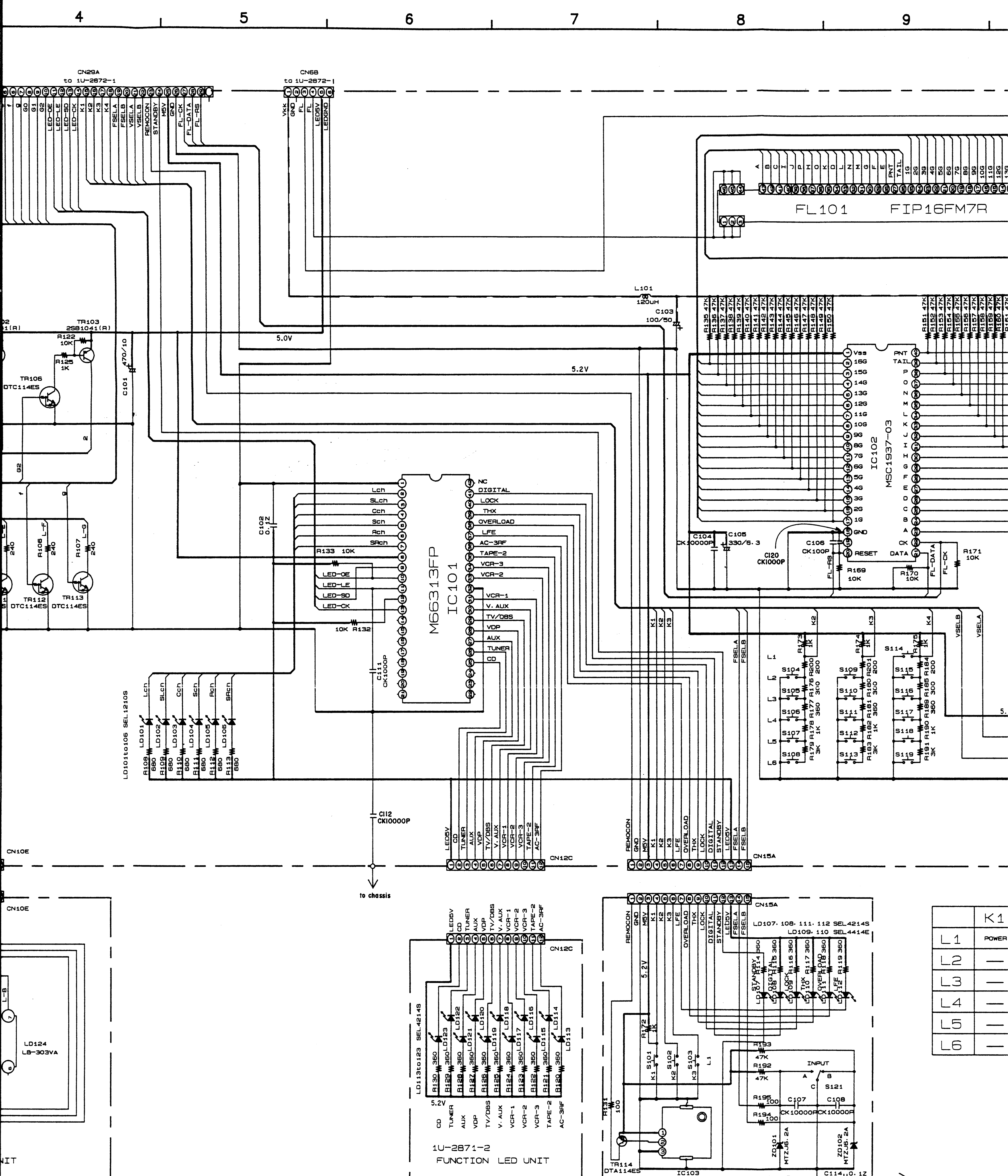
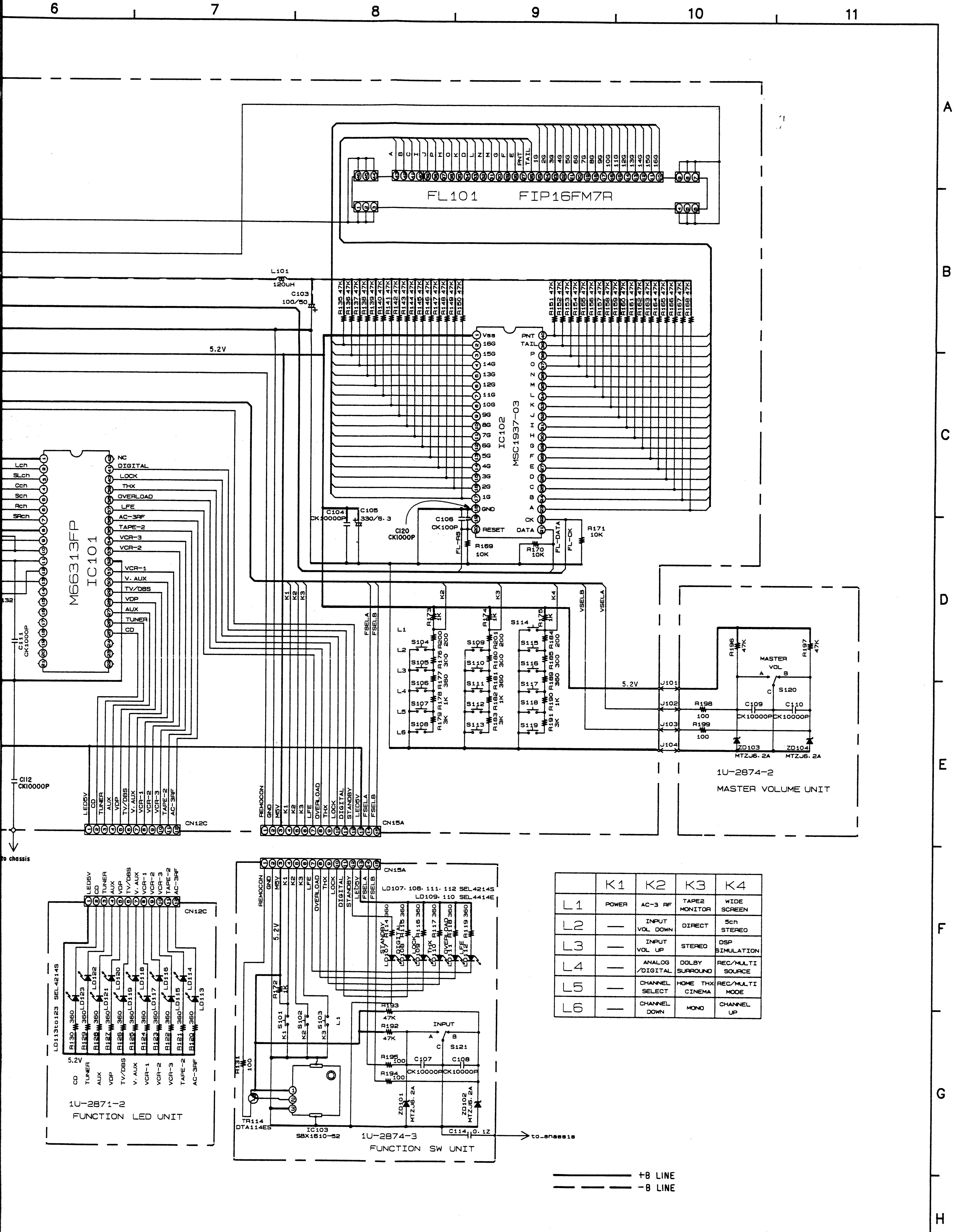
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

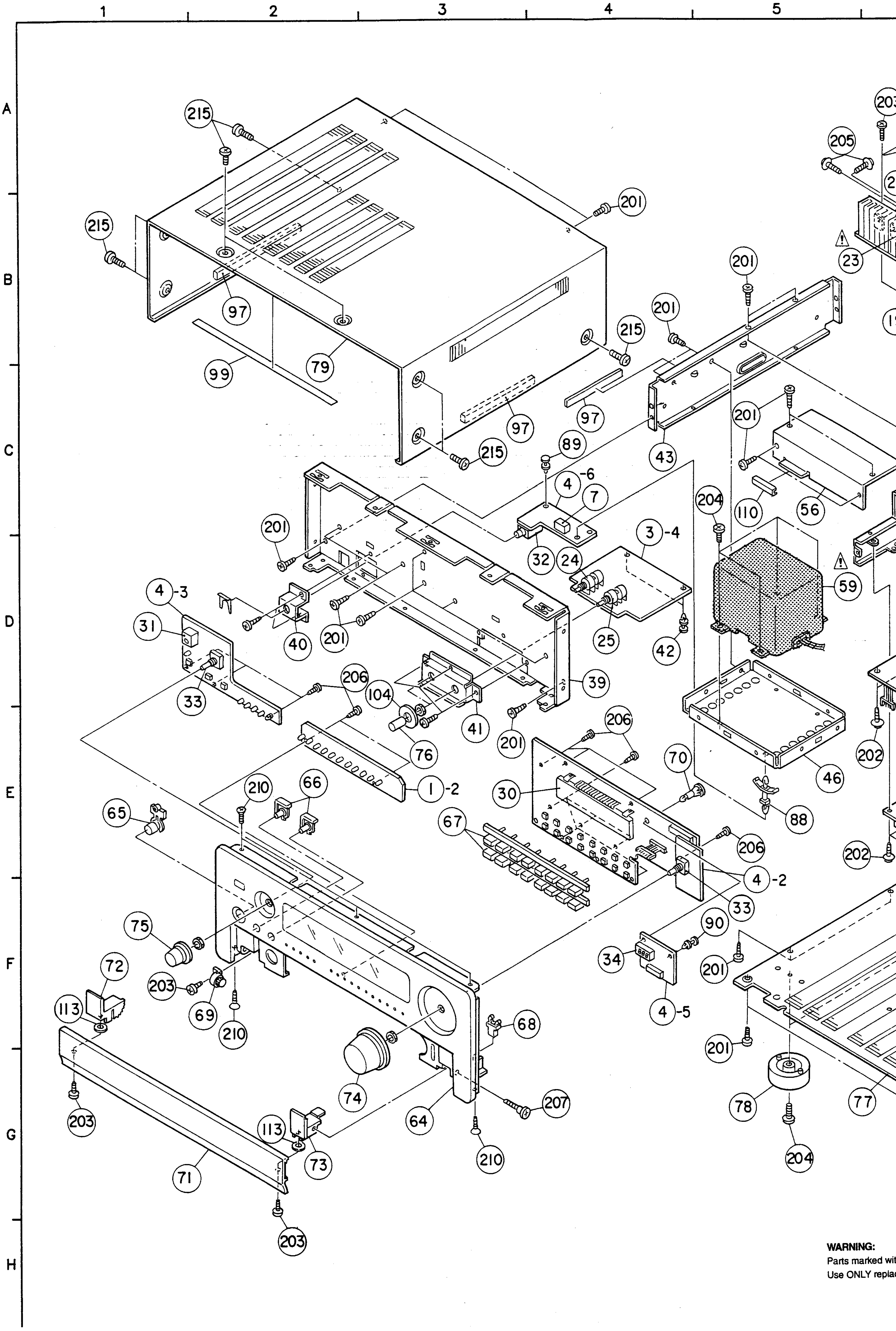
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.


4
5
6
7
8
9
CN29A
to 1U-2872-1
CN68
to 1U-2872-1
FL101 FIP16FM7R
IC101 M66313FP
IC102 MSC1937-03
L101 120uH
C103 100/50
TR103 2SB1041(R)
R122 10K
R125 1K
TR106 DTC114ES
C101 470/10
5.0V
5.2V
C102 0.1Z
R133 10K
R132 10K
C111 CK1000P
C112 CK10000P
to chassis
C104 CK10000P
C105 330/6.3
C106 CK100P
C120 CK1000P
RESET
R169 10K
R170 10K
R171 10K
TR112 DTC114ES
TR113 DTC114ES
LD101to106 SEL1210S
CN10E
CN12C
CN15A
LD124 LB-303VA
LD113to123 SEL4214S
1U-2871-2
FUNCTION LED UNIT
LD107, 108, 111, 112 SEL4214S
LD109, 110 SEL4414E
INPUT
S121
C107 CK10000P
C108 CK10000P
ZD101 MTZJ6.2A
ZD102 MTZJ6.2A
TR114 DTA114ES
IC103 SBX1610-52
C114 0.1Z
1U-2874-3
FUNCTION SW UNIT
to chassis
K1
L1 POWER
L2 —
L3 —
L4 —
L5 —
L6 —


6
7
8
9
10
11
A
B
C
D
E
F
G
H
FL101 FIP16FM7R
L101 120uH
C103 100/50
5.2V
IC102 MSC1937-03
Vss
16G
15G
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
GND
RESET
PNT
TAIL
DATA
CK
C104 CK10000P
C105 330/6.3
C120 CK1000P
C106 CK100P
R169 10K
R170 10K
R171 10K
FL-RS
FL-DATA
FL-CK
M66313FP IC101
Lch
SLch
Cch
Sch
Rch
SRch
NC
DIGITAL
LOCK
THX
OVERLOAD
LFE
AC-3RF
TAPE-2
VCR-3
VCR-2
VCR-1
V. AUX
TV/DBS
VDP
AUX
TUNER
CD
C111 CK1000P
C112 CK10000P
to chassis
CN12C
CN15A
K1
K2
K3
K4
FSELA
FSELB
VSELB
VSELA
L1
L2
L3
L4
L5
L6
S104
S105
S106
S107
S108
S109
S110
S111
S112
S113
S114
S115
S116
S117
S118
S119
J101
J102
J103
J104
R196 47K
R197 47K
MASTER VOL
S120
R198 100
R199 100
C109 CK10000P
C110 CK10000P
ZD103 MTZJ6.2A
ZD104 MTZJ6.2A
1U-2874-2
MASTER VOLUME UNIT
LD107, 108, 111, 112 SEL4214S
LD109, 110 SEL4414E
LD113to123 SEL4214S
1U-2871-2
FUNCTION LED UNIT
S101
S102
S103
R172 1K
R193 47K
R192 47K
INPUT
S121
R195 100
R194 100
C107 CK10000P
C108 CK10000P
ZD101 MTZJ6.2A
ZD102 MTZJ6.2A
C114 0.1Z
to chassis
R131 100
TR114 DTA114ES
IC103 SBX1610-52
1U-2874-3
FUNCTION SW UNIT
REMOCON
GND
M5V
LED5V
STANDBY
+B LINE
-B LINE

	K1	K2	K3	K4
L1	POWER	AC-3 RF	TAPE2 MONITOR	WIDE SCREEN
L2	—	INPUT VOL DOWN	DIRECT	5ch STEREO
L3	—	INPUT VOL UP	STEREO	DSP SIMULATION
L4	—	ANALOG /DIGITAL	DOLBY SURROUND	REC/MULTI SOURCE
L5	—	CHANNEL SELECT	HOME THX CINEMA	REC/MULTI MODE
L6	—	CHANNEL DOWN	MONO	CHANNEL UP

EXPLODED VIEW OF CHASSIS AND CABINET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4 -5
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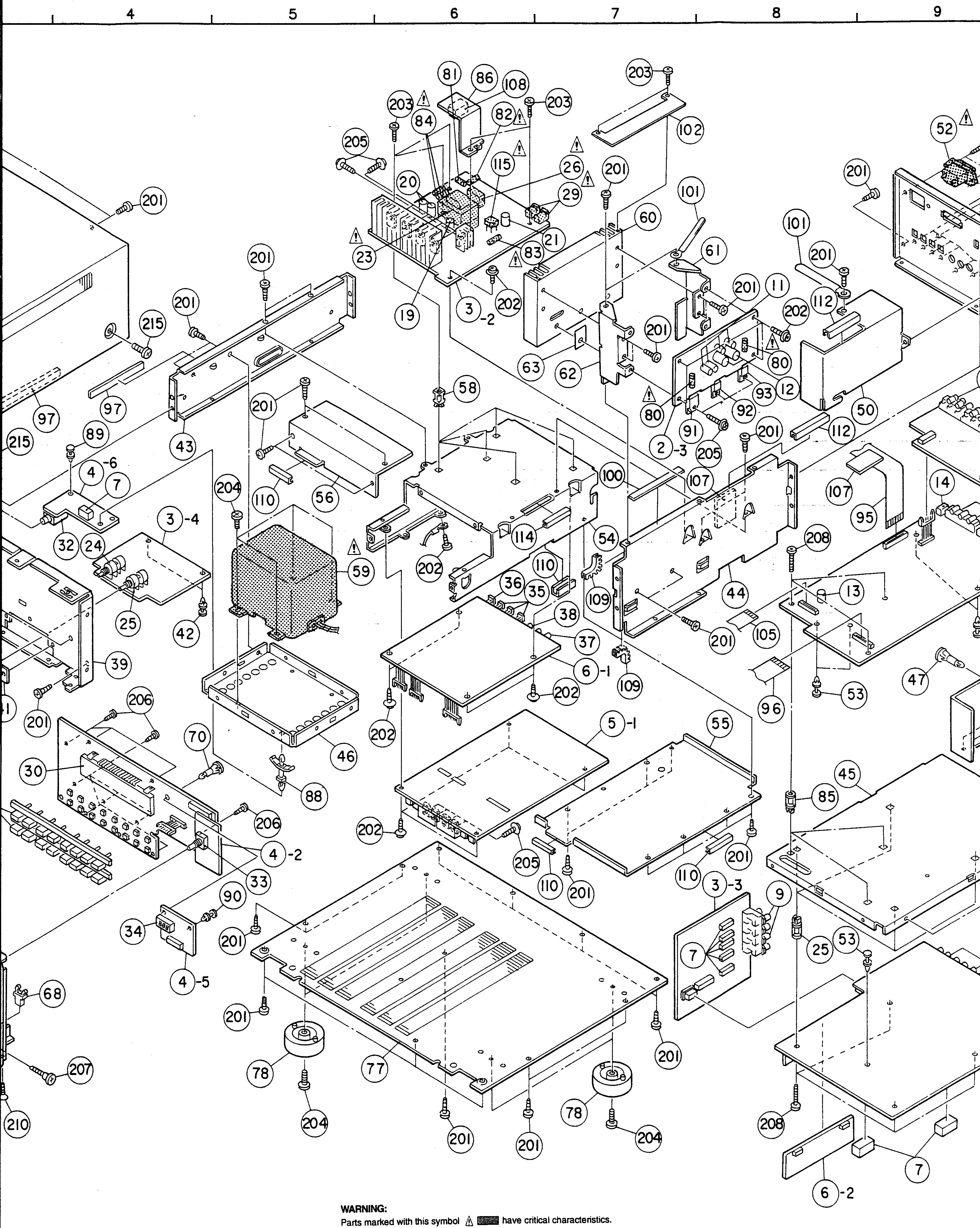
WARNING:
Parts marked wit
Use ONLY replac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114
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208
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6-1
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206
202
5-1
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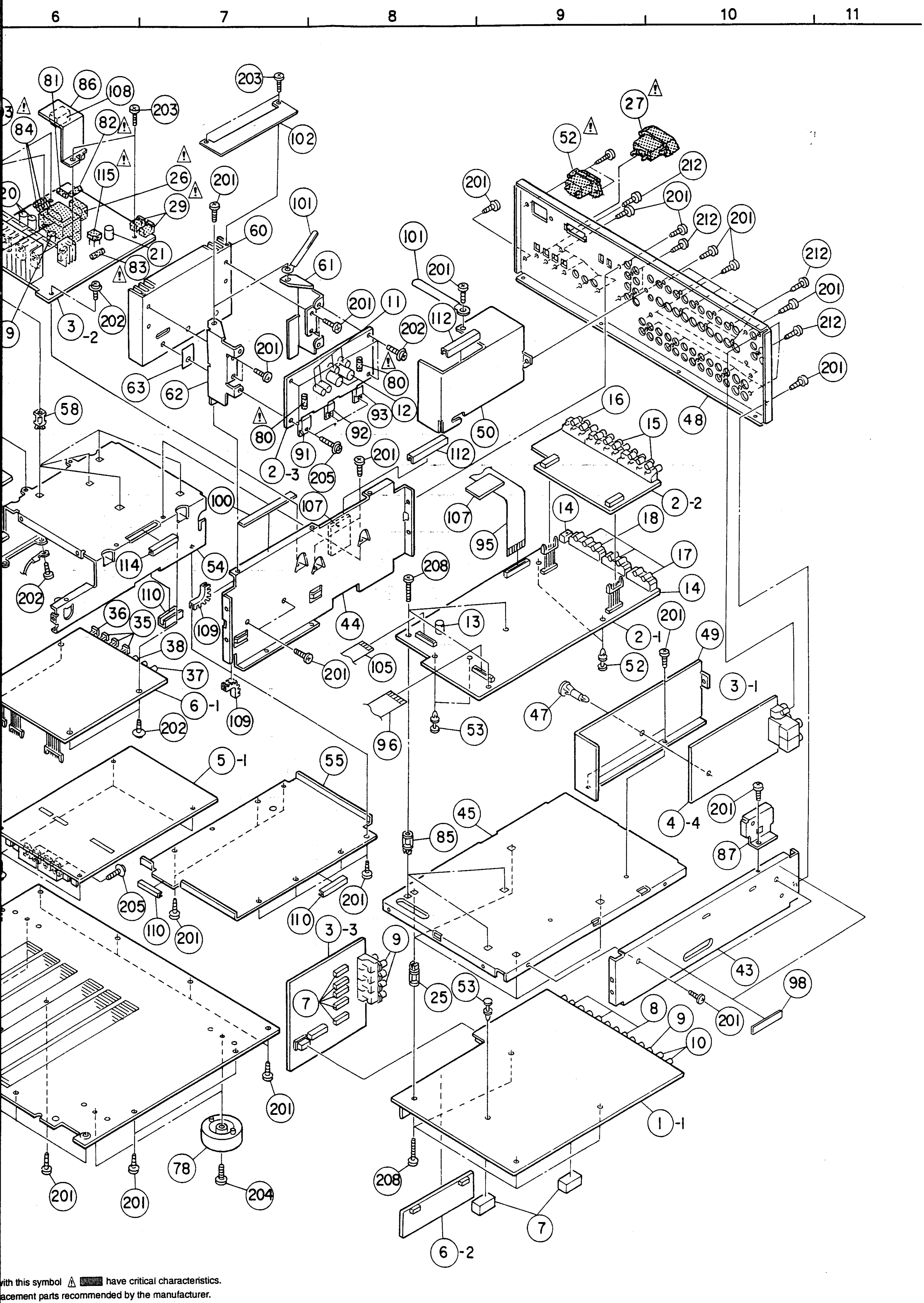
6-2

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.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5-1
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3-3
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201
1-1
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78
204
201
201
208
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6-2

ith this symbol ⚠ ▨ have critical characteristics.
acement parts recommended by the manufacturer.

PARTS LIST OF EXPLODED VIEW

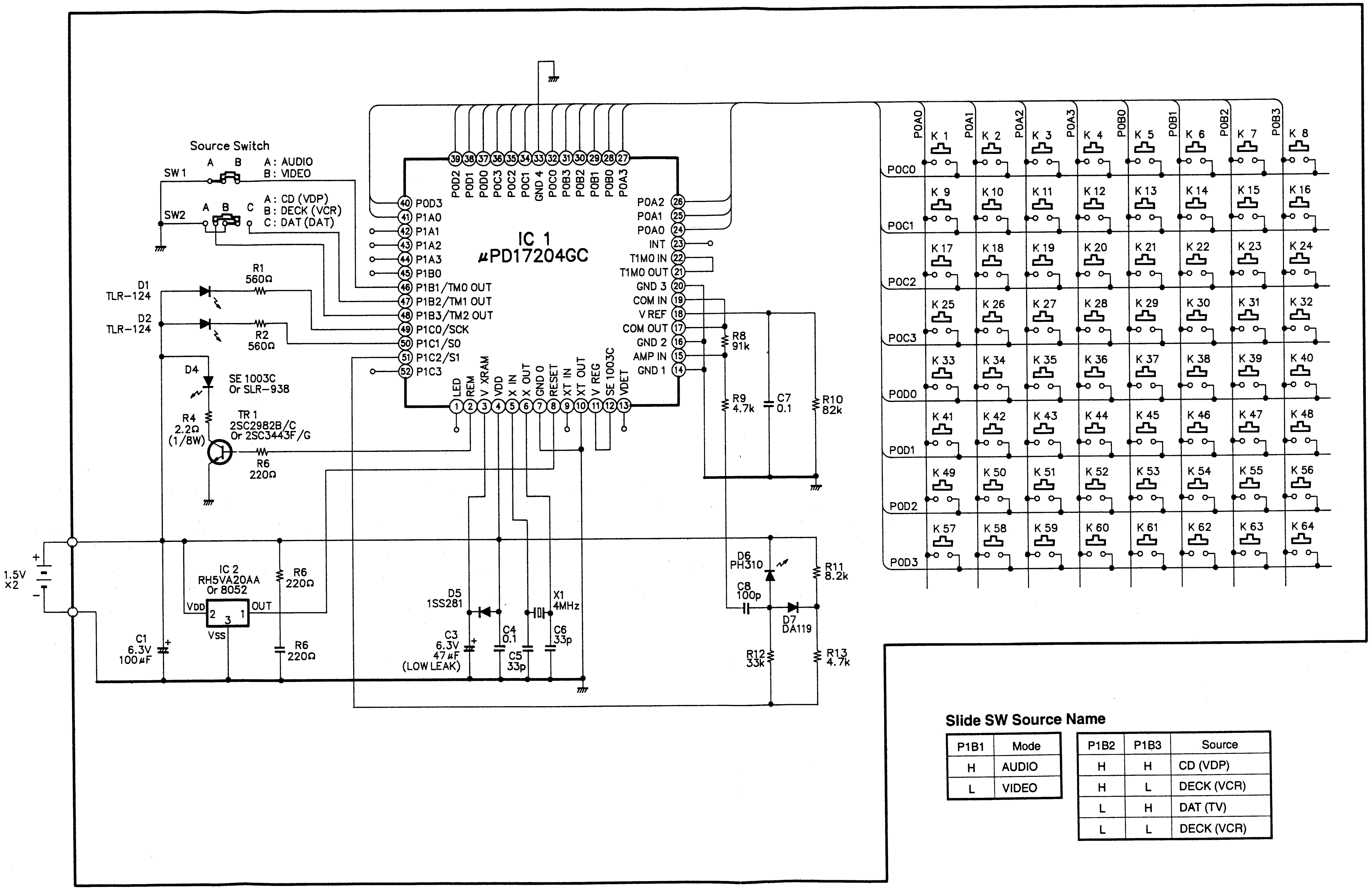
Ref. No.	Part No.	Part Name	Remarke	Q'ty
◉ 1	1U- 2871 A	Audio P.W.B. unit Ass'y		1s
1-1	—	Audio unit		(1)
1-2	—	Function LED unit		(1)
◉ 2	1U- 2872 A	Video P.W.B. unit Ass'y		1s
2-1	—	S-video & micon unit		(1)
2-2	—	C-video unit		(1)
2-3	—	Power supply-2 unit		(1)
◉ 3	1U- 2873 A	Power supply P.W.B. unit Ass'y		1s
3-1	—	—		
3-2	—	Power supply-1 unit		(1)
3-3	—	Pre out unit		(1)
3-4	—	Tone unit		(1)
◉ 4	1U- 2874 A	Display P.W.B. unit Ass'y		1s
4-1	—	FLD unit		(1)
4-2	—	Master volume unit		(1)
4-3	—	Function sw unit		(1)
4-4	—	Hi-vision unit		(1)
4-5	—	Volume LED unit		(1)
4-6	—	Headphone unit		(1)
◉ 5	1U- 2875 A	Digital P.W.B. unit Ass'y		1s
5-1	—	AD/DA unit		(1)
◉ 6	1U- 2928 A	DSP P.W.B. unit Ass'y		1s
6-1	—	DSP unit		(1)
6-2	—	Shield unit		(1)
7	214 0127 003	Relay (RY-12W)	RL401~404,651~654	8
8	204 8513 007	6 P pin jack (S-GND)	JK402~404	3
9	204 8514 006	4 P pin jack (S-GND)	JK405,651,652	3
10	204 8518 002	2 P pin jack	JK406,407	2
11	254 4259 700	Chemicon 2200µF/35V	C939,941,951,952	4
12	254 4413 009	Chemicon 2200µF/35V(ARS)	C940,942	2
13	254 4250 783	Chemicon 3300µF/6.3V	C903	1
14	204 8260 004	Mini jack	JK805	1
15	204 8515 005	4 P pin jack (S-GND)	JK751,752	2
16	204 8516 004	3 P pin jack (S-GND)	JK753	1
17	204 8415 008	3 P S-terminal (AU)	JK801~803	3
18	205 0906 000	1 P S-terminal (AU,SW)	JK804	1
19	254 4256 790	Chemicon 2200µF/25V	C981	1
20	254 4257 702	Chemicon 3300µF/25V	C963,964	2
21	254 4416 705	Chemicon 10000µF/25V	C922	1
22	—	—		
⚠ 23	233 6074 009	Power transformer (mini)	PT961	1
24	211 0860 002	Variable resistor 30kohm	VR651	1
25	211 0860 015	Variable resistor 5kohm	VR652	1
⚠ 26	214 0188 000	Relay VS-12MBNR-SM2(TV-8)	RL961	1
⚠ 27	203 3942 007	AC outlet		1
28	—	—		
⚠ 29	204 8289 001	DC power jack	JK961,962	2
30	393 4156 001	FLD FIP16FM7R	FL101	1
31	499 0150 008	Remocon sensor SBX1510-52	IC103	1
32	204 8217 031	Head phone jack (BK(AU))	JK711	1
33	212 0373 000	Rotary encoder-EC16B	S120,121	2
34	393 9549 008	LED LB-303VA	LD124	1
35	269 0097 007	Optical input GP1F32R	IC005,010,011	3
36	269 0098 006	Optical output GP1F32T	IC012	1
37	204 8517 003	1 P pin jack (S-GND)	JK102,701	2
38	204 8357 027	2 P pin jack	JK101	1
◉ 39	411 1328 208	Front chassis		1

Ref. No.	Part No.	Part Name	Remarke	Q'ty
◉ 40	412 4045 002	Phone bracket		1
◉ 41	412 4046 001	Volume bracket		1
◉ 42	412 2814 002	Card spacer (L=8)		2
◉ 43	411 1330 209	Side chassis		2
◉ 44	411 1331 208	Center chassis		1
45	414 0755 208	Shield		1
◉ 46	411 1332 207	Trans chassis		1
◉ 47	412 2741 049	P.W.B. holder (H=12)		2
◉ 48	105 1177 224	Rear panel		1
49	414 0756 100	Shield-tuner		1
50	414 0757 109	Shield-pre		1
⚠ 51	—	—		
⚠ 52	203 3970 008	AC inlet		1
◉ 53	412 2814 057	Card spacer (L=12)		5
54	414 0758 205	Shield cover-1		1
55	414 0759 204	Shield cover-2		1
56	414 0762 107	Shield cover-3		1
57	342 0016 011	Ferrite clamp		2
◉ 58	415 9032 006	P.W.B. holder (T)		5
⚠ 59	233 6208 008	Power transformer		1
◉ 60	417 0523 206	Radiator		1
◉ 61	412 4047 000	Radiator bracket (R)		1
◉ 62	412 4053 007	Radiator bracket (L)		1
63	415 0234 007	Insulating sheet		1
◉ 64	144 2473 414	Front panel Ass'y		1
65	113 1654 120	Power button Ass'y		1
66	113 9249 139	Selector button		2
67	113 1464 006	Push button		2
68	435 0125 000	Latch (4T02)		1
69	421 9007 007	Mini damper		1
◉ 70	412 2741 036	P.W.B. holder (H=10)		1
71	144 2477 119	Trap door		1
72	401 0165 216	Hinge (L)		1
73	401 0166 312	Hinge (R)		1
74	112 0774 011	Knob Ass'y (M)		1
75	112 0773 119	Knob Ass'y (F)		1
76	112 0685 113	Knob (round)		2
◉ 77	105 1178 207	Bottom cover		1
78	104 9044 000	Foot Ass'y		4
◉ 79	102 0569 216	Top cover		1
⚠ 80	206 1015 061	Fuse 2.0 A	F014,015 (1U-2872)	2
⚠ 81	206 1015 016	Fuse 1.25 A	F001 (1U-2873)	1
⚠ 82	206 1015 029	Fuse 1 A (T)	F008 (1U-2873)	1
⚠ 83	206 1015 087	Fuse 4.0 A (T)	F011 (1U-2873)	1
⚠ 84	206 1015 058	Fuse 1.6 A	F012,013 (1U-2873)	2
◉ 85	412 2762 002	P.W.B. holder		7
86	411 1347 001	Trans cover		1
87	414 0769 003	Shield cover (T)		1
88	415 9016 006	P.W.B. holder		1
◉ 89	412 2814 015	Card spacer (L=14)		2
◉ 90	412 2814 028	Card spacer (L=10)		1
91	273 0387 004	Transistor 2SC3853(O/P/Y)(Z)	TR961	1
92	263 0561 001	IC NJM7915FA	IC966	1
93	263 0812 006	IC NJM7815FA(S)	IC965	1
94	204 9529 003	4 P pin jack (SW)	JK702	1
95	009 0142 017	37 P FF cable (Shield)	CN37A	1
96	009 0105 025	25 P FF cable	CN25A	1

Ref. No.	Part No.	Part Name	Remarke	Q'ty
97	461 0390 070	Rubber sheet 130x8xT3	put on T.cover	3
98	461 0551 055	Rubber sheet 65x8xT3	Side chassis	2
99	122 0183 036	Spacer 280x10xT0.5	Front panel upper	1
100	461 0551 042	Rubber sheet 115x8xT4	Center chassis	1
101	445 0048 003	Cord holder L=76		1
102	414 0796 009	Safety plate	Radiator	1
★ 103	445 8004 007	Wire clamper		6
104	122 0220 012	Blind sheet (VR)		2
105	009 0101 003	29 P FGFcable	CN29A	1
⚠ 106	342 0022 005	Line filter(SFC-8)		1
107	461 0551 039	Rubber sheet 40x50xT2	FF cable	2
108	461 9063 007	Rubber sheet 3x10xT3		1
109	449 0131 006	Flevible bush	L=33	2
110	449 0080 018	Edging	L=40	4
111	—	—		
112	499 0080 034	Edging	L=75	2
113	477 0231 024	Washer φ4 (S)	Trap door	2
114	499 0080 047	Edging	L=45	1
⚠ 115	276 0424 005	Diode 4D4B42 (LC1)	Bridge	1
116				
SCREWS				
201	473 8061 003	Screw 3x8 (B) CU		69
202	473 8007 025	Cup screw 3x8		13
203	473 7500 015	Screw 3x8 (P)		10
204	473 7007 000	Screw 4x8 (S) BK		8
205	473 8007 009	Cup screw 3x12		1
206	473 7505 007	Screw 2.6x8 (P)		17
207	471 7514 001	Special screw		1
208	473 7501 030	Screw 3x20 (P)		7
209	—	—		
210	473 7003 004	F.H. screw 3x8		5
211	473 7005 002	Screw 3x10 (S)		2
212	477 0064 107	Fixing screw		27
213	473 7002 021	Screw 3x8 (S) BK		2
214	473 7002 018	Screw 3x8 (S)		3
215	471 9043 008	Special screw		8
216				
LABEL & SHEETS				
121	—	—		
122	—	—		
123	—	—		
124	—	—		
125	513 2585 003	Fuse label	for F008	1
126	513 2585 016	Fuse label	for F001	1
127	513 2585 029	Fuse label	for F012,013	2
128	513 2585 058	Fuse label	for F011	1
129	513 2585 032	Fuse label	for F014,015	2
130				

Ref. No.	Part No.	Part Name	Remarke	Q'ty
PACKING & ACCESSORIES				
151	504 9102 029	Stylen paper	900x700	1
152	505 9102 019	Poly cover	900x450	1
◉ 153	503 1198 203	Cushion		2
◉ 154	501 1894 022	Carton case		1
155	—	—		
156	—	—		
157	GEN 3355 -2	Envelope Sub Ass'y		1s
157-1	505 8006 019	Envelope	255x380	(1)
157-2	511 2887 006	Inst. manual		(1)
157-3	399 0310 001	Remote controller	RC-809	(1)
157-4	—	Batteries	R6P/AA/SUM-3	(2)
⚠ 157-5	206 2147 006	AC cord with connector		(1)
158	502 0889 002	Pad	for Envelope	2
159	513 9111 001	Color label (Gold)		2
160				

REMOTE CONTROL UNIT (RC-809)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Source Switch
SW 1
A
B
A : AUDIO
B : VIDEO
SW2
A
B
C
A : CD (VDP)
B : DECK (VCR)
C : DAT (DAT)
D1
TLR−124
D2
TLR−124
R1
560Ω
R2
560Ω
D4
SE 1003C
Or SLR−938
R4
2.2Ω
(1/8W)
TR 1
2SC2982B/C
Or 2SC3443F/G
R6
220Ω
1.5V
×2
+
−
IC 2
RH5VA20AA
Or 8052
VDD
OUT
VSS
2
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R6
220Ω
C1
6.3V
100µF
R6
220Ω
IC 1
µPD17204GC
39 P0D2
38 P0D1
37 P0D0
36 P0C3
35 P0C2
34 P0C1
33 GND 4
32 P0C0
31 P0B3
30 P0B2
29 P0B1
28 P0B0
27 P0A3
40 P0D3
41 P1A0
42 P1A1
43 P1A2
44 P1A3
45 P1B0
46 P1B1/TM0 OUT
47 P1B2/TM1 OUT
48 P1B3/TM2 OUT
49 P1C0/SCK
50 P1C1/S0
51 P1C2/S1
52 P1C3
26 P0A2
25 P0A1
24 P0A0
23 INT
22 T1M0 IN
21 T1M0 OUT
20 GND 3
19 COM IN
18 V REF
17 COM OUT
16 GND 2
15 AMP IN
14 GND 1
1 LED
2 REM
3 V XRAM
4 VDD
5 X IN
6 X OUT
7 GND 0
8 RESET
9 XT IN
10 XT OUT
11 V REG
12 SE 1003C
13 VDET
R8
91k
R9
4.7k
C7
0.1
R10
82k
D5
1SS281
C3
6.3V
47µF
(LOW LEAK)
C4
0.1
C5
33p
X1
4MHz
C6
33p
D6
PH310
C8
100p
D7
DA119
R11
8.2k
R12
33k
R13
4.7k
P0A0
P0A1
P0A2
P0A3
P0B0
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K 64

KEY TABLE

K1			
K9	K10	K11	K12
K17	K18	K19	K20
K25	K26	K27	K28
K33	K34	K35	K36
K41	K42	K43	K44
K49	K50	K51	K52
K57	K58	K59	K60
K61	K62	K63	K64
K53	K54	K55	K56
K45	K46	K47	
K37	K38	K39	K40
K29	K30	K31	K32
K21	K22	K23	K24
K13	K14	K15	K16
K5	K6	K7	K8

Slide SW Source Name

P1B1	Mode
H	AUDIO
L	VIDEO

P1B2	P1B3	Source
H	H	CD (VDP)
H	L	DECK (VCR)
L	H	DAT (TV)
L	L	DECK (VCR)

REMOTE CONTROL UNIT(RC-809)

REMOTE CONTROL P.W.B.UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarke
SEMICONDUCTORS GROUP			
IC001	9H3 1000 169	IC µPD17204GC-538	
IC002	9H3 1000 158	IC RH5V20AA	Volume detector
TR001	9H3 1000 070	Transistor 2SC3443BF/BG	
or		Transistor 2SC2982B/C	
D001,002	9H3 1000 028	LED TLR124	
D004	9H3 1000 131	LED SE1003-C	infrared LED
D005	9H3 1000 087	Diode 1SS281(1)	
D006	9H3 1000 029	Diode PH310	photo-pin
D007	9H3 1000 071	Diode DA119/DA118	
or	276 0574 900	Diode 1SS196	
RESISTORS GROUP (Not included carbon film ±5% 1/4W)			
R001,002	247 0006 988	Carbon chip 560ohm 1/10W	RM73B--561J
R004	247 0001 909	Carbon chip 2.2ohm 1/10W	RM73B--2R2J
R006	247 0005 989	Carbon chip 220ohm 1/10W	RM73B--221J
R007	247 0012 927	Carbon chip 100kohm 1/10W	RM73B--104J
R008	247 0012 914	Carbon chip 91kohm 1/10W	RM73B--913J
R009	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
R010	247 0012 901	Carbon chip 82kohm 1/10W	RM73B--823J
R011	247 0009 969	Carbon chip 8.2kohm 1/10W	RM73B--822J
R012	247 0011 902	Carbon chip 33kohm 1/10W	RM73B--333J
R013	247 0009 901	Carbon chip 4.7kohm 1/10W	RM73B--472J
J007,008	247 0018 905	Carbon chip 0ohm 1/10W	RM73B--0R0K
CAPACITORS GROUP			
C001	254 4213 034	Electrolytic 100µF/6.3V	CE04W0J101M
C002	—	Ceramic chip 0.33µF/25V	CK73F1E334Z
C003	254 4213 021	Electrolytic 47µF/6.3V	CE04W0J470M
C004	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C005,006	257 0003 946	Ceramic chip 33pF/50V	CK73SL1H330J
C007	257 0014 935	Ceramic chip 0.1µF/25V	CK73F1E104Z
C008	257 0004 961	Ceramic chip 100pF/50V	CC73SL1H101J

OTHERS PARTS GROUP				Q'ty
	—	(P.W.board)		(1)
X001	9H3 1000 088	Ceramic resonator	KBR4.0M503	1
SW001	9H3 1000 089	Slide switch 1-2		1
SW002	9H3 1000 0	Slide switch 1-3		1
	—	Wrapping terminal		2

PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarke	Q'ty
1	9H3 1000 145	Case top Ass'y		1
2	—			
3	9H3 1000 149	Switch rubber		1
4	9H3 1000 146	Case bottom Ass'y		1
5	9H3 1000 147	Battery cover		1
6	9H3 1000 148	IR filter		1
7	9H3 1000 150	Button switch		2
8	—			
9	9H3 1000 153	Coil spring		1
10	9H3 1000 151	Coil spring		1
11	9H3 1000 152	Coil spring		1
12	9H3 1000 154	Screw 2x6		1
13	9H3 1000 107	Screw 2x5		1
14	9H3 1000 156	P.W.B. unit Ass'y		1s
15	9H3 1000 155	Label		1
16	—	Sheet		1
17				

DENON

Hi-Fi Digital AV Pre-Amplifier

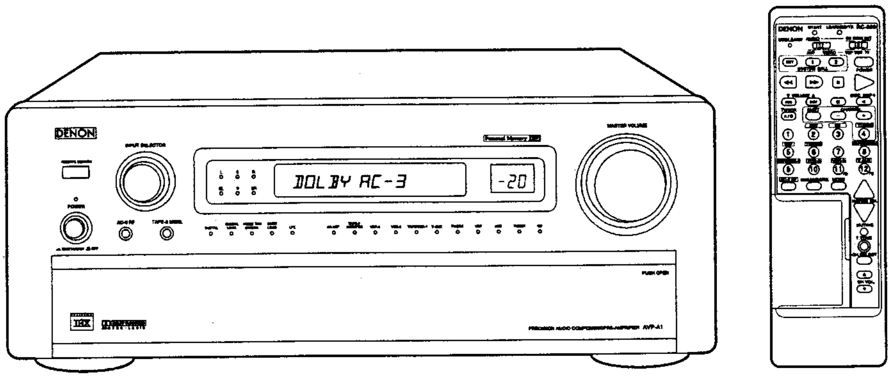
For Europe model

SERVICE MANUAL

MODEL AVP-A1

DIGITAL AV PRE-AMPLIFIER

This service manual is mentioned by difference only from already issued service manual model AVP-A1 (No. 0522). When servicing AVP-A1, please refer to both.



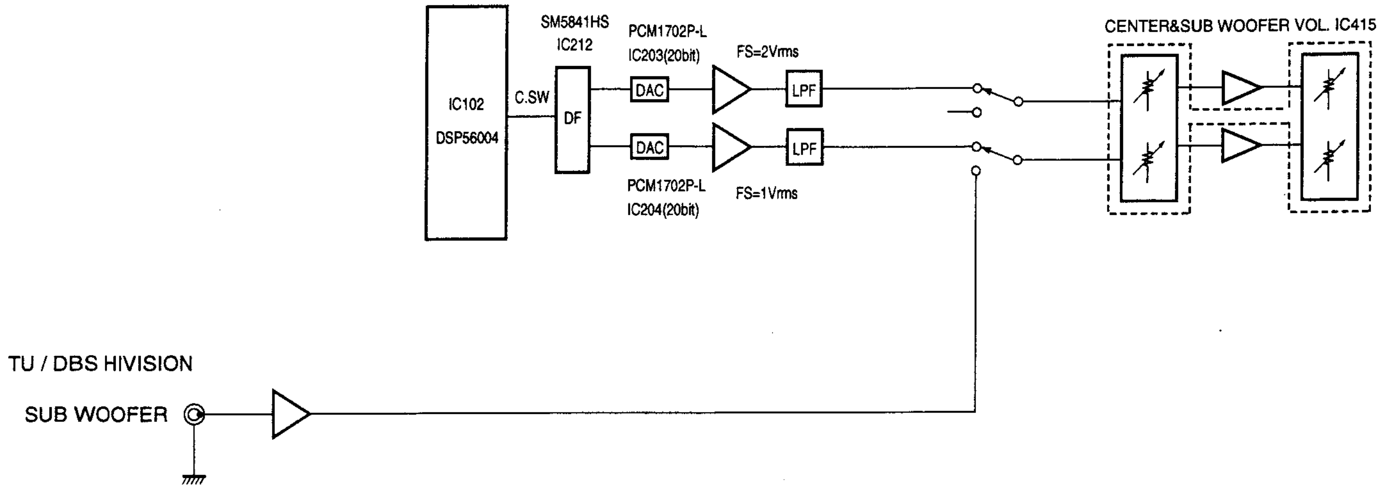
CONTENTS

BLOCK DIAGRAM 2
WIRING DIAGRAM 2
SCHEMATIC DIAGRAM / P.W.Board 3, 4
P.W.B UNIT ASS'Y LIST 5
PARTS LIST OF EXPLODED VIEW 6
EXPLODED VIEW 7

NIPPON COLUMBIA CO., LTD.

BLOCK DIAGRAM

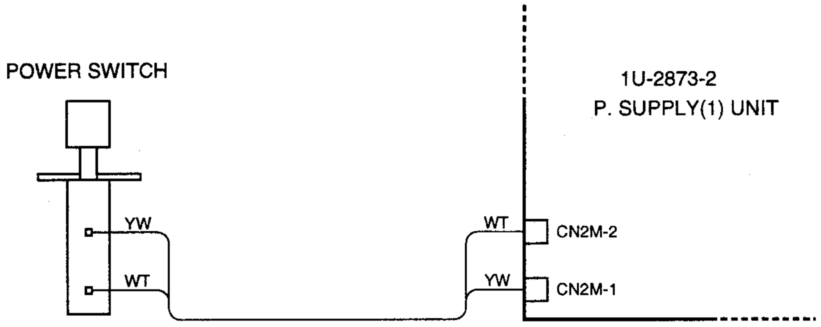
- SUB WOOFER input circuit is added to AVP-A1 Europe model as compared with AVP-A1 Asia model.

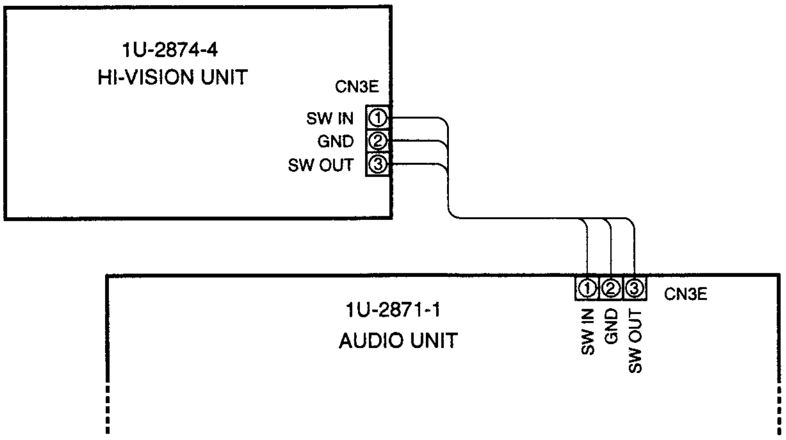

IC102
DSP56004
C.SW
SM5841HS
IC212
DF
PCM1702P-L
IC203(20bit)
DAC
DAC
PCM1702P-L
IC204(20bit)
FS=2Vrms
FS=1Vrms
LPF
LPF
CENTER&SUB WOOFER VOL. IC415
TU / DBS HIVISION
SUB WOOFER

WIRING DIAGRAM

AUDIO SECTION

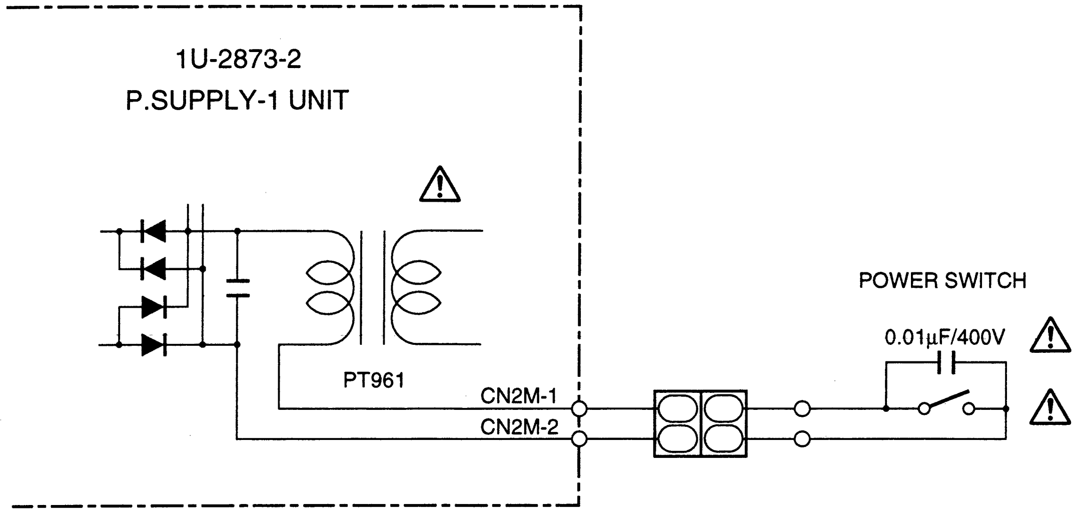
- The power switch is changed to mechanical type switch and the connector (CN3E) of HI-VISION UNIT is added to AVP-A1 Europe model as compared with AVP-A1 Asia model.

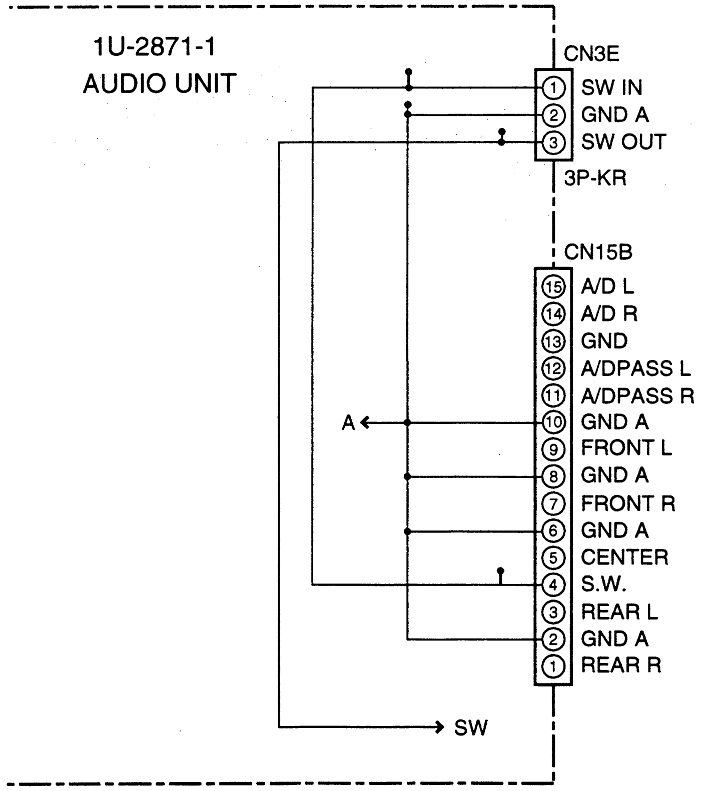

POWER SWITCH
YW
WT
WT
YW
1U-2873-2
P. SUPPLY(1) UNIT
CN2M-2
CN2M-1


1U-2874-4
HI-VISION UNIT
CN3E
SW IN ①
GND ②
SW OUT ③
①②③
CN3E
1U-2871-1
AUDIO UNIT
SW IN
GND
SW OUT

SCHEMATIC DIAGRAM / P.W.Board

- The power switch is changed to mechanical type switch and the connector (CN3E) of HI-VISION UNIT is added to AVP-A1 Europe model as compared with AVP-A1 Asia model.

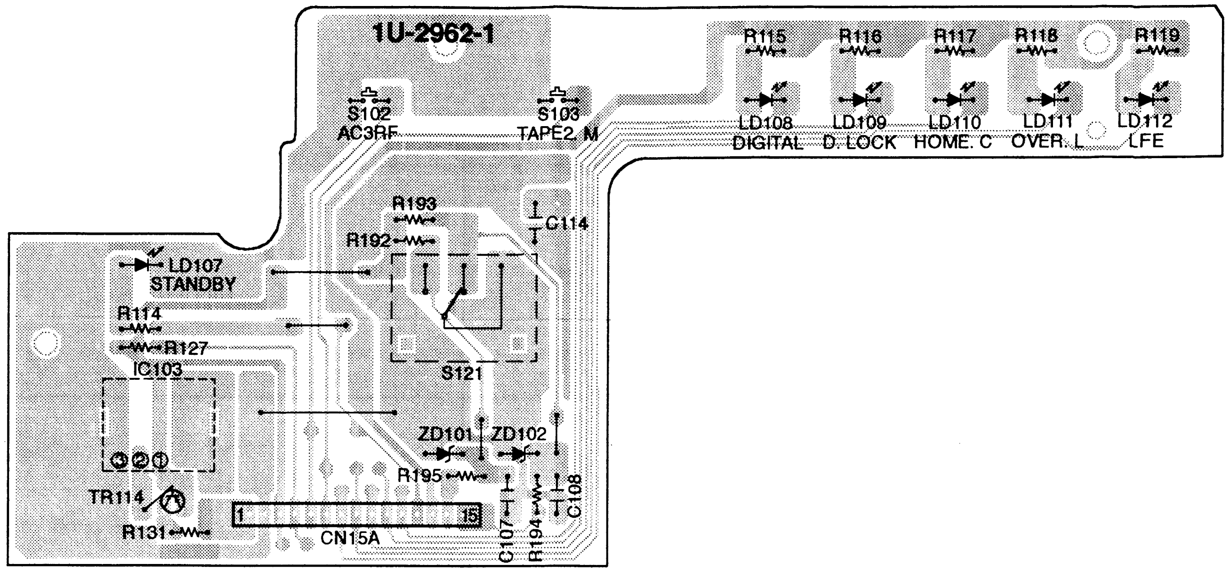

1U-2873-2
P.SUPPLY-1 UNIT
PT961
CN2M-1
CN2M-2
POWER SWITCH
0.01µF/400V


1U-2871-1
AUDIO UNIT
CN3E
① SW IN
② GND A
③ SW OUT
3P-KR
CN15B
⑮ A/D L
⑭ A/D R
⑬ GND
⑫ A/DPASS L
⑪ A/DPASS R
⑩ GND A
⑨ FRONT L
⑧ GND A
⑦ FRONT R
⑥ GND A
⑤ CENTER
④ S.W.
③ REAR L
② GND A
① REAR R
A
SW

- **1U-2962-1 FUNCTION SW UNIT**

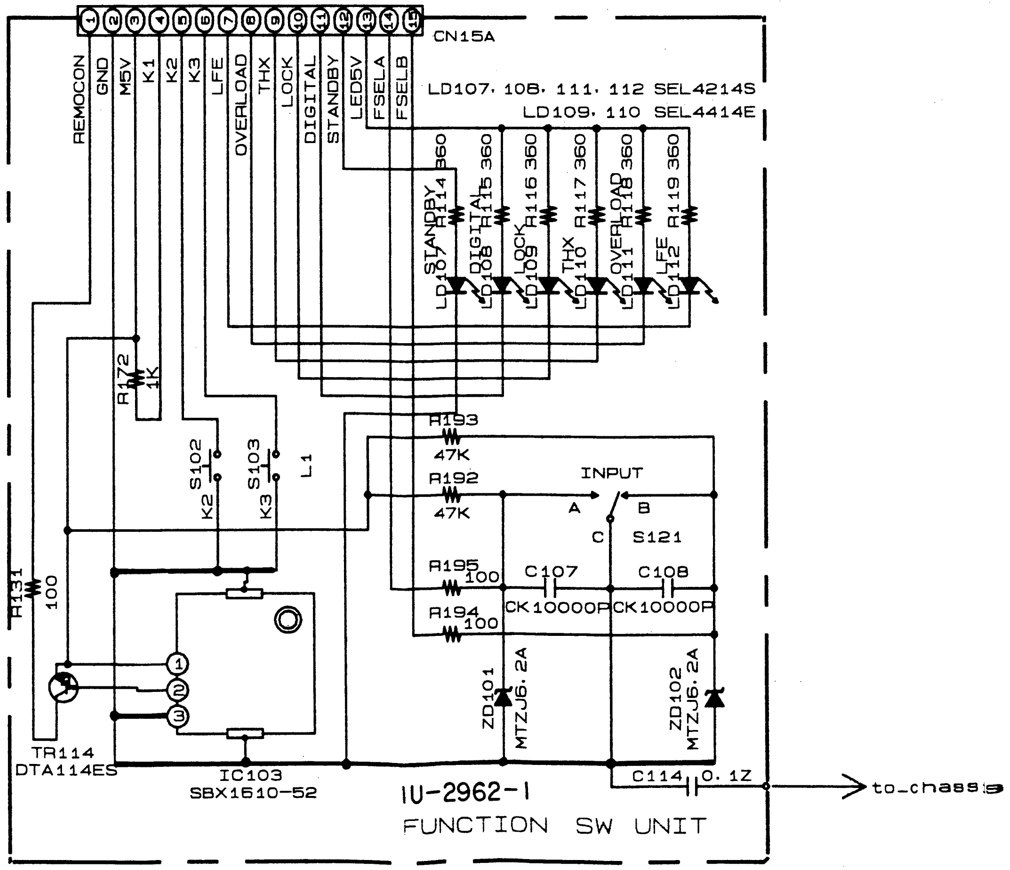
  S101 is omitted from 1U-2874-3 schematic diagram.

○ Dimensions of newly added P.W.B.


1U-2962-1
R115
R116
R117
R118
R119
S102
AC3RF
S103
TAPE2. M
LD108
DIGITAL
LD109
D. LOCK
LD110
HOME. C
LD111
OVER. L
LD112
LFE
R193
R192
C114
LD107
STANDBY
R114
R127
IC103
S121
ZD101
ZD102
R195
TR114
R131
CN15A
1
15
C107
R194
C108

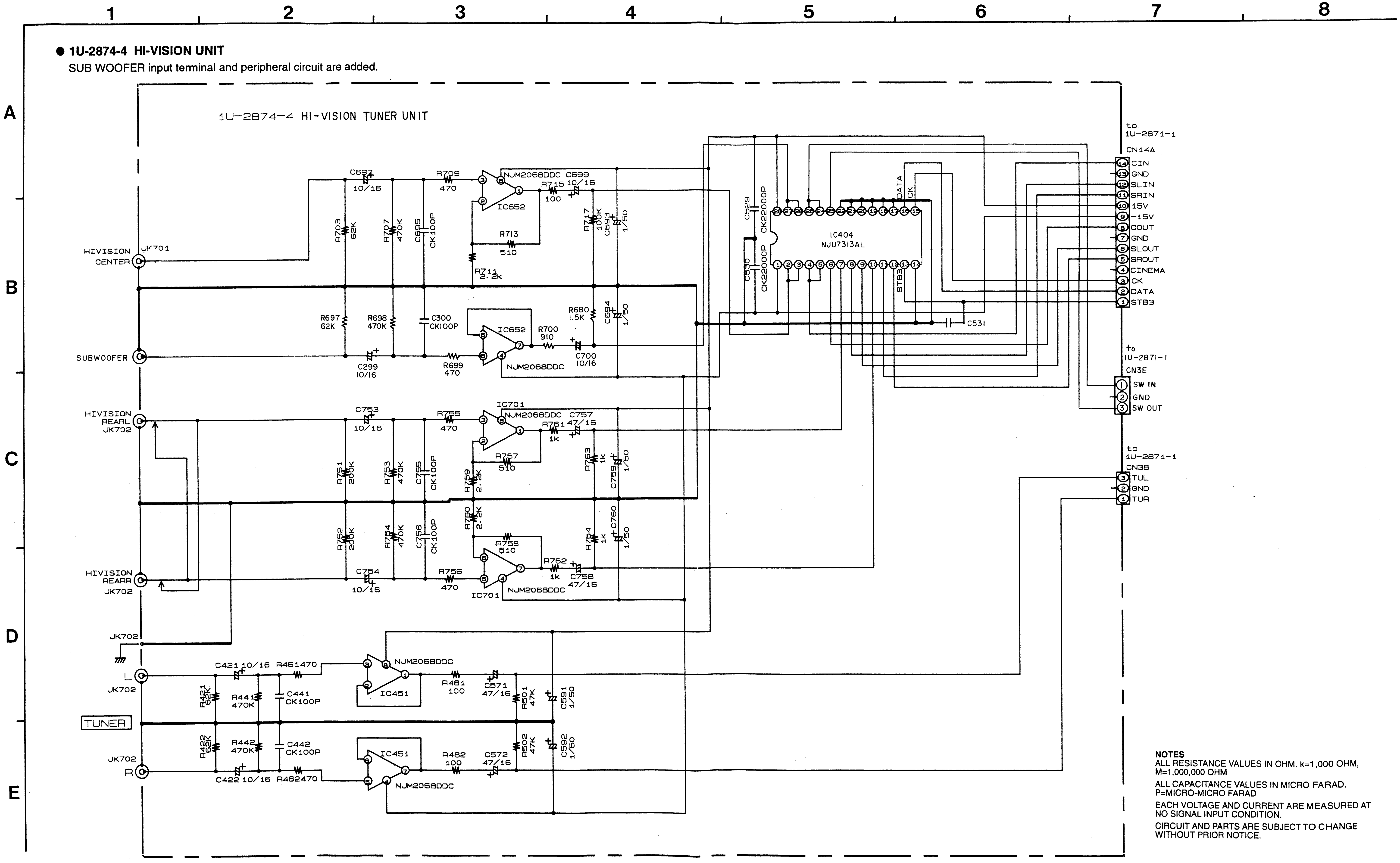
- **1U-2962-1 FUNCTION P.W.Board.**

  Parts change is deletion of S101 tact switch (each 1) as compared with AVP-A1 Asia model.


CN15A
REMOCON
GND
M5V
K1
K2
K3
LFE
OVERLOAD
THX
LOCK
DIGITAL
STANDBY
LED5V
FSELA
FSELB
LD107, 108, 111, 112 SEL4214S
LD109, 110 SEL4414E
R114 360
R115 360
R116 360
R117 360
R118 360
R119 360
LD107 STANDBY
LD108 DIGITAL
LD109 LOCK
LD110 THX
LD111 OVERLOAD
LD112 LFE
R172 1K
S102 K2
S103 K3
L1
R193 47K
R192 47K
INPUT
A
B
C
S121
R195 100
R194 100
C107
C108
CK10000P
CK10000P
R131 100
TR114
DTA114ES
IC103
SBX1610-52
ZD101 MTZJ6. 2A
ZD102 MTZJ6. 2A
C114 0. 1Z
to chassis
1U-2962-1
FUNCTION SW UNIT

● 1U-2874-4 HI-VISION UNIT

SUB WOOFER input terminal and peripheral circuit are added.


1
2
3
4
5
6
7
8
A
B
C
D
E
1U-2874-4 HI-VISION TUNER UNIT
HIVISION CENTER
JK701
SUBWOOFER
HIVISION REARL
JK702
HIVISION REARR
JK702
JK702
L
JK702
TUNER
JK702
R
C697 10/16
R709 470
NJM2068DDC
C699 10/16
R715 100
IC652
R703 62K
R707 470K
C695 CK100P
R713 510
R711 2.2K
R717 100K
C693 1/50
R697 62K
R698 470K
C300 CK100P
IC652
R700 910
R680 1.5K
C694 1/50
C700 10/16
C299 10/16
R699 470
NJM2068DDC
IC701
C753 10/16
R755 470
NJM2068DDC
C757 47/16
R761 1k
R757 510
R751 200K
R753 470K
C755 CK100P
R759 2.2K
R763 1k
C759 1/50
R752 200K
R754 470K
C756 CK100P
R760 2.2K
R758 510
R764 1k
C760 1/50
R762 1k
C758 47/16
C754 10/16
R756 470
IC701
NJM2068DDC
C421 10/16
R461 470
NJM2068DDC
R481 100
C571 47/16
R421 62K
R441 470K
C441 CK100P
IC451
R501 47K
C591 1/50
R422 62K
R442 470K
C442 CK100P
IC451
R482 100
C572 47/16
R502 47K
C592 1/50
C422 10/16
R462 470
NJM2068DDC
C529 CK22000P
C530 CK22000P
IC404
NJU7313AL
DATA
CK
STB3
C531
to 1U-2871-1
CN14A
CIN
GND
SLIN
SRIN
15V
-15V
COUT
GND
SLOUT
SROUT
CINEMA
CK
DATA
STB3
to 1U-2871-1
CN3E
SW IN
GND
SW OUT
to 1U-2871-1
CN3B
TUL
GND
TUR

NOTES

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

1U-2871B AUDIO UNIT Ass'y

* Except the following part, all others are the same as 1U-2871A.

Ref. No.	Part No.	Part Name	Remarks
OTHER PARTS GROUP			
CN3E	205 0343 032	3P connector base (KR-PH)	

1U-2872D VIDEO UNIT Ass'y

* Except the following part, all others are the same as 1U-2872A.

Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C903	259 0007 702	Electrolytic 8200 µF/5.5V	SB CAP==822=C
C906	254 4254 909	Electrolytic 10 µF/16V	CE04W1C100M

1U-2873C POWER SUPPLY UNIT Ass'y

* Except the following part, all others are the same as 1U-2873A.

Ref. No.	Part No.	Part Name	Remarks
OTHER PARTS GROUP			
CN2M	203 2388 002	2P CAP connector Ass'y	
⚠ F008	206 1015 032	Fuse 2.5A	
	513 2585 074	Fuse label	for F008

1U-2874B DISPLAY UNIT Ass'y

* Except the following part, all others are the same as 1U-2874A.

Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP			
C299	254 4254 909	Electrolytic 10 µF/16V	CE04W1C100M
C300	253 1179 903	Ceramic 100pF/50V	CK45B1H101K
C700	254 4254 909	Electrolytic 10 µF/16V	CE04W1C100M
OTHER PARTS GROUP			
JK701	204 8531 005	2P pin jack (C-GND)	
CN3E	205 0343 032	3P connector base (KR-PH)	

1U-2928B DSP UNIT Ass'y

* Except the following part, all others are the same as 1U-2928A.

Ref. No.	Part No.	Part Name	Remarks
RESISTORS GROUP			
R049,050	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K

1U-2962 FUNCTION SW UNIT Ass'y

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC103	499 0150 008	Remocon sensor SBX1610-52	
TR114	269 0046 003	Transistor DTA114ES	Built in resistor
ZD101,102	276 0637 902	Zener diode MTZJ6.2A	6.2V
LD107,108	393 9408 903	LED SEL4214S	Red
LD109,110	393 9408 916	LED SEL4414E	Green
LD111,112	393 9408 903	LED SEL4214S	Red
CAPACITORS GROUP			
C107,108	253 1181 904	Ceramic 0.01 µF/50V	CK45F1H103Z
C114	253 9036 006	BC Ceramic 0.1 µF/25V	CK45=1E104Z
OTHER PARTS GROUP			
S102,103	212 5604 910	Tact switch	
S121	212 0373 000	Rotaly encoder EC16B	
CN15A	204 6335 025	15P KR-DA connector cord	

PARTS LIST OF EXPLODED VIEW

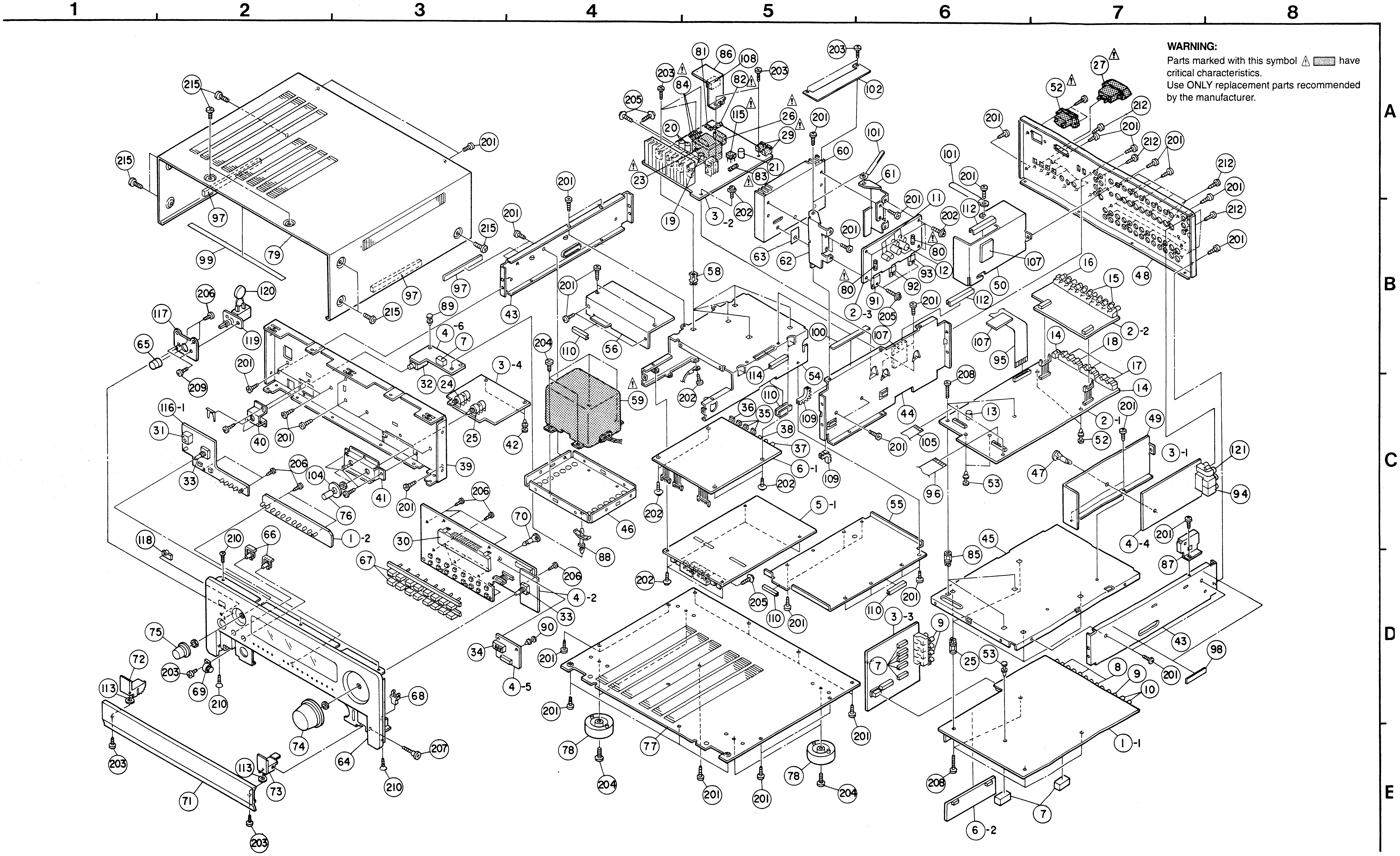
Ref. No.	Part No.	Part Name	Remarke	Q'ty
◉ 1	1U- 2871 B	Audio P.W.B. unit Ass'y		1s
1-1	—	Audio unit		(1)
1-2	—	Function LED unit		(1)
◉ 2	1U- 2872 D	Video P.W.B. unit Ass'y		1s
2-1	—	S-video & micon unit		(1)
2-2	—	C-video unit		(1)
2-3	—	Power supply-2 unit		(1)
◉ 3	1U- 2873 C	Power supply P.W.B. unit Ass'y		1s
3-1	—	—		
3-2	—	Power supply-1 unit		(1)
3-3	—	Pre out unit		(1)
3-4	—	Tone unit		(1)
◉ 4	1U- 2874 B	Display P.W.B. unit Ass'y		1s
4-1	—	FLD unit		(1)
4-2	—	Master volume unit		(1)
4-3	—	—		
4-4	—	Hi-vision unit		(1)
4-5	—	Volume LED unit		(1)
4-6	—	Headphone unit		(1)
◉ 5	1U- 2875 A	Digital P.W.B. unit Ass'y		1s
5-1	—	AD/DA unit		(1)
◉ 6	1U- 2928 B	DSP P.W.B. unit Ass'y		1s
6-1	—	DSP unit		(1)
6-2	—	Shield unit		(1)
7	214 0127 003	Relay (RY-12W)	RL401~404,651~654	8
8	204 8513 007	6 P pin jack (S-GND)	JK402~404	3
9	204 8514 006	4 P pin jack (S-GND)	JK405,651,652	3
10	204 8518 002	2 P pin jack	JK406,407	2
11	254 4259 700	Chemicon 2200µF/35V	C939,941,951,952	4
12	254 4413 009	Chemicon 2200µF/35V(ARS)	C940,942	2
13	254 4250 783	Chemicon 3300µF/6.3V	C903	1
14	204 8260 004	Mini jack	JK805	1
15	204 8515 005	4 P pin jack (S-GND)	JK751,752	2
16	204 8516 004	3 P pin jack (S-GND)	JK753	1
17	204 8415 008	3 P S-terminal (AU)	JK801~803	3
18	205 0906 000	1 P S-terminal (AU,SW)	JK804	1
19	254 4256 790	Chemicon 2200µF/25V	C981	1
20	254 4257 702	Chemicon 3300µF/25V	C963,964	2
21	254 4416 705	Chemicon 10000µF/25V	C922	1
22	—	—		
⚠ 23	233 6074 009	Power transformer (mini)	PT961	1
24	211 0860 002	Variable resistor 30kohm	VR651	1
25	211 0860 015	Variable resistor 5kohm	VR652	1
⚠ 26	214 0188 000	Relay VS-12MBNR-SM2(TV-8)	RL961	1
⚠ 27	203 3942 007	AC outlet		1
28	—	—		
⚠ 29	204 8289 001	DC power jack	JK961,962	2
30	393 4156 001	FLD FIP16FM7R	FL101	1
31	499 0150 008	Remocon sensor SBX1510-52	IC103	1
32	204 8217 031	Head phone jack (BK(AU))	JK711	1
33	212 0373 000	Rotary encoder-EC16B	S120,121	2
34	393 9549 008	LED LB-303VA	LD124	1
35	269 0097 007	Optical input GP1F32R	IC005,010,011	3
36	269 0098 006	Optical output GP1F32T	IC012	1
37	204 8517 003	1 P pin jack (S-GND)	JK102	1
38	204 8357 027	2 P pin jack	JK101	1
◉ 39	411 1328 305	Front chassis		1

Ref. No.	Part No.	Part Name	Remarke	Q'ty
◉ 40	412 4045 002	Phone bracket		1
◉ 41	412 4046 001	Volume bracket		1
◉ 42	412 2814 002	Card spacer (L=8)		2
◉ 43	411 1330 209	Side chassis		2
◉ 44	411 1331 208	Center chassis		1
45	414 0755 208	Shield		1
◉ 46	411 1332 207	Trans chassis		1
◉ 47	412 2741 049	P.W.B. holder (H=12)		2
◉ 48	105 1177 237	Rear panel		1
49	414 0756 100	Shield-tuner		1
50	414 0757 109	Shield-pre		1
⚠ 51	—	—		
⚠ 52	203 3970 008	AC inlet		1
◉ 53	412 2814 057	Card spacer (L=12)		5
54	414 0758 205	Shield cover-1		1
55	414 0759 204	Shield cover-2		1
56	414 0762 107	Shield cover-3		1
57	342 0016 011	Ferrite clamp		2
◉ 58	415 9032 006	P.W.B. holder (T)		5
⚠ 59	233 6208 008	Power transformer		1
◉ 60	417 0523 206	Radiator		1
◉ 61	412 4047 000	Radiator bracket (R)		1
◉ 62	412 4053 007	Radiator bracket (L)		1
63	415 0234 007	Insulating sheet		1
◉ 64	144 2473 621	Front panel Ass'y		1
65	113 1792 011	Power button Ass'y		1
66	113 9249 139	Selector button		2
67	113 1464 006	Push button		2
68	435 0125 000	Latch (4T02)		1
69	421 9007 007	Mini damper		1
◉ 70	412 2741 036	P.W.B. holder (H=10)		1
71	144 2477 119	Trap door		1
72	401 0165 216	Hinge (L)		1
73	401 0166 312	Hinge (R)		1
74	112 0774 011	Knob Ass'y (M)		1
75	112 0773 119	Knob Ass'y (F)		1
76	112 0685 113	Knob (round)		2
◉ 77	105 1178 207	Bottom cover		1
78	104 9044 000	Foot Ass'y		4
◉ 79	102 0569 216	Top cover		1
⚠ 80	206 1015 061	Fuse 2.0 A	F014,015 (1U-2872)	2
⚠ 81	206 1015 016	Fuse 1.25 A	F001 (1U-2873)	1
⚠ 82	206 1015 032	Fuse 2.5 A	F008 (1U-2873)	1
⚠ 83	206 1015 087	Fuse 4.0 A (T)	F011 (1U-2873)	1
⚠ 84	206 1015 058	Fuse 1.6 A	F012,013 (1U-2873)	2
◉ 85	412 2762 002	P.W.B. holder		7
86	411 1347 001	Trans cover		1
87	414 0769 003	Shield cover (T)		1
88	415 9016 006	P.W.B. holder		1
◉ 89	412 2814 015	Card spacer (L=14)		2
◉ 90	412 2814 028	Card spacer (L=10)		1
91	273 0387 004	Transistor 2SC3853(O/P/Y)(Z)	TR961	1
92	263 0561 001	IC NJM7915FA	IC966	1
93	263 0812 006	IC NJM7815FA(S)	IC965	1
94	204 8529 004	4 P pin jack (SW)	JK702	1
95	009 0142 017	37 P FF cable (Shield)	CN37A	1
96	009 0105 025	25 P FF cable	CN25A	1

Ref. No.	Part No.	Part Name	Remarke	Q'ty
97	461 0390 070	Rubber sheet 130x8xT3	put on T.cover	3
98	461 0551 055	Rubber sheet 65x8xT3	Side chassis	2
99	122 0183 036	Spacer 280x10xT0.5	Front panel upper	1
100	461 0551 042	Rubber sheet 115x8xT4	Center chassis	1
101	445 0048 003	Cord holder L=76		1
102	414 0796 009	Safety plate	Radiator	1
★ 103	445 8004 007	Wire clamper		6
104	122 0220 012	Blind sheet (VR)		2
105	009 0101 003	29 P FGFcable	CN29A	1
⚠ 106	342 0022 005	Line filter(SFC-8)		1
107	461 0551 039	Rubber sheet 40x50xT2	FF cable	3
108	461 0551 068	Rubber sheet 25x20xT2		1
109	449 0131 006	Flevible bush	L=33	2
110	449 0080 018	Edging	L=40	4
111	—	—		
112	499 0080 034	Edging	L=75	2
113	477 0231 024	Washer ϕ4 (S)	Trap door	2
114	499 0080 047	Edging	L=45	1
⚠ 115	276 0424 005	Diode 4D4B42 (LC1)	Bridge	1
116	1U-2962	Function SW unit Ass'y		1s
116-1	—	Function SW unit		(1)
117	412 4163 007	Switch bracket		1
118	146 1656 005	LED holder		1
⚠ 119	212 1031 008	Power SW (TV-5)		1
⚠ 120	253 8014 003	CK45F2GAC103M		1
121	204 8531 005	2P pin jack (C-GND)	JK701	1
★ 122	203 2387 003	2P plug connector Ass'y	for Power switch	1
★ 123	203 4872 040	3P KR-KR ribbon cable (375)	for CN3E	1
★ 124	342 0016 011	Ferrite clamp		1
SCREWS				
201	473 8061 003	Screw 3x8 (B) CU		69
202	473 8007 025	Cup screw 3x8		13
203	473 7500 015	Screw 3x8 (P)		10
204	473 7007 000	Screw 4x8 (S) BK		8
205	473 8007 009	Cup screw 3x12		1
206	473 7505 007	Screw 2.6x8 (P)		18
207	471 7514 001	Special screw		1
208	473 7501 030	Screw 3x20 (P)		7
209	471 3303 016	Screw 3x6 (CBS-Z)		2
210	473 7003 004	F.H. screw 3x8		5
211	473 7005 002	Screw 3x10 (S)		2
212	477 0064 107	Fixing screw		27
213	473 7002 021	Screw 3x8 (S) BK		2
214	473 7002 018	Screw 3x8 (S)		3
215	471 9043 008	Special screw		8
216				
LABEL & OTHERS				
130	513 2585 074	Fuse label	for F008	1
131	513 2585 016	Fuse label	for F001	1
132	513 2585 029	Fuse label	for F012,013	2
133	513 2585 058	Fuse label	for F011	1
134	513 2585 032	Fuse label	for F014,015	2

Ref. No.	Part No.	Part Name	Remarke	Q'ty
PACKING & ACCESSORIES				
151	504 9102 029	Stylen paper	900x700	1
152	505 9102 019	Poly cover	900x450	1
◉ 153	503 1198 203	Cushion		2
◉ 154	501 1894 035	Carton case		1
155	—	—		
156	—	—		
157	GEN 3355 -2	Envelope Sub Ass'y		1s
157-1	505 8006 019	Envelope	255x380	(1)
157-2	511 2955 006	Inst. manual		(1)
157-3	399 0310 001	Remote controller	RC-809	(1)
157-4	—	Batteries	R6P/AA/SUM-3	(2)
⚠ 157-5	206 2147 006	AC cord with connector		(1)
158	502 0889 002	Pad	for Envelope	2
159	513 9111 001	Color label (Gold)		2
160				

EXPLODED VIEW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WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.